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THE ELIXIR OF LIFE

OR

2905 A.D.

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“ For I dipt into the future, far as human eye could see,
Saw the vision of the world, and all the wonder that would be.”
Tennyson.



THE ELIXIR OF LIFE

OR

2905 A.D.

A Novel of the Far Future

BY

HERBERT GUBBINS

AUTHOR OF

"LES BELETTES "

AND

" CONCERNING FAIR WOMEN "

(ready shortly).

*Translator of Russian to the Psychological Journal,
" Light."*

LONDON :

HENRY J. DRANE,

Danegeld House, 82A, Farringdon Street, E.C.

DEDICATION.

CARISSIMA MATER MEA.—In inscribing with your beloved and honoured name this novel I could wish that the fruits of my studies were worthier of the tender and anxious pains of your spotless life.

From your graceful and accomplished taste I early learnt that affection for literature which has exercised some influence over the pursuits of my life.

Don't you remember how I used to read to you from phonography some of the best writers. Happy while I borrowed from your refined tastes could I have found it not more difficult to imitate your virtues. Your unimpeachable Christian Life, your cheerful piety, your kindly charity, and all the noble qualities that brighten a nature more free from the thought of self and more godlike than any I have known. Never more than at this moment do I wish that my writings were possessed of a merit that might live and remain a memorial to the excellence of a mother and the gratitude of a son.

And I would mention thee, SIGNOR GINO PIERATTINI, beloved Professor and most loyal friend, *dilettissimo amico mio*. In teaching me thy sweet Italian language I have learnt to admire thy noble nature, the charm and grace of thy lofty soul, the rich stores of thy cultured mind, thy singular gifts and many accomplishments. I thank the gods that kind fate brought you into my life. You are my ideal.

DEDICATION.

Nor could I forget my old and worthy friend and German Master, Dr. FRANZ MULLER, to whom I am indebted for my knowledge of German.

I thank you too, CONSTANTINE SARANTCHOFF for the pains you have taken in instructing me in your rich Russian tongue. May our great mutual wish be one day gratified, that is, that you and I in coadjutorship edit a Russian Grammar, and furnish a want now much felt by students of your language.

With cordial salutations to my other esteemed Masters and Friends.

H.G.

BOSCOMBE,

HANTS,

July 13th, 1913.

PREFACE.

THIS is an age of inventions with a negative nomenclature. The horseless carriage is followed by wireless telegraphy. Yet many people will not be convinced of a new invention till it has become commonly known, and then they merely say : " I should not have thought it could have been possible."

When Lavoisier heard of meteorites falling from the sky, he said this could not be, as there were no stones in the sky.

Only eighty years ago scientific men in England proved to their own entire satisfaction that the notion that railway trains would some day be able to travel at the rate of thirty miles an hour was preposterous. When Simpson discovered the properties of chloroform, Majendi, an almost equally illustrious man, all but declared the great Scottish physician to be a charlatan. The telephone, according to a Frenchman, supposed in his time to be the great authority on such matters, was said to be merely a species of ventriloquism. To come nearer to the present day, many will no doubt recall how, only a few years ago, it was day after day laid down in the Press that the submarine boat, which has already revolutionised naval tactics, was an absolutely inoffensive weapon in practice. Thus it has ever been with each new advance made by human ingenuity.

PREFACE—*continued.*

PROLONGING LIFE.

In all ages mankind has viewed the prospect of dissolution with feelings akin to those of fear. Little wonder is it that humanity has sought its elixirs of life, and other aids to that theoretical rejuvenescence typified in "Faust," and re-echoed in the desire of mortals to live again, and to become young that they might extend the span of existence. Only a short time ago, two doctors in Paris proved that electricity would prolong life. M. d'Orsay describes the treatment as an electric bath.

An electric sleep or anæsthesia has been produced by the action on the brain of intermittent electric currents of low voltage. Professor Stephane Leduc, of Nantes, and others have made it a subject of special study for years with success.

When writing this book some eight years ago, I had no idea of these discoveries or of the rapid advance electricity would make in the medical profession.

Dr. Lewis Jones, in an extract from his work on "Medical Electricity," writes :

"It is now one hundred and fifty years since the beginning of medical electricity. During the whole of that time it has had to fight its way step by step in the face of many difficulties, and the most serious of them all has been the passive resistance of medical men themselves. The vitality which it has shown under adverse circumstances is full of good omen for the future. Medical electricity is advancing, and will continue to advance indefinitely. To those who have fol-

PREFACE—*continued.*

lowed its development, the progress achieved in the past decade is enormous."

In his work, "Therapeutic Electricity," Dr. W. S. Hedley says :—

"In Therapeutic Electricity, as in other branches of applied science, electricity owes its usefulness to the fact that it offers a ready and rapid means of transferring energy from one point to another. The electrical engineer, by various devices, transforms chemical, mechanical or other energy into electrical forces, and so makes the former re-appear when and where he will, as light, or heat, or sound, or motion. The medical man, similarly, transforms the same energy and transfers it ; but this time it is destined to re-appear as work, in the shape of physiological action, physical effects or electrolytic change, on the various tissues and organs of the body."

THE AIRSHIP.

It may safely be presumed that in the immediate future, man will fly. M. Phillippe, President of the Italian Aeronautical Society, spoke with the most absolute confidence of the coming conquest of the air in the antechamber of Queen Margherita. "Why should I spend £2,000,000," asked the King of Italy, "in building a huge ironclad which may be wrecked by aeroplanes before it leaves the harbour ?" Never, doubtless, in a century and a quarter of aeronautics has so much activity been shown as now. In America, in France, in Austria, and in all civilized

PREFACE—continued.

countries, men are launching themselves into the air. Complete success will not be attained at once, yet the experiments will go on, and something appreciable is sure to come, and considering that an incentive has been found in the shape of monetary prizes offered for simple flights, there is no doubt that the problem will be solved in the near future. The following periodicals devoted to aeronautics are already in existence :—

Conquête de l'Air, fortnightly.

Revue de l'Aviation, fortnightly.

Illustrierte Aeronautische Mittheilungen (German, French, and English), monthly (10th year), 13s. 7d. per annum. David Nutt, 57-59 Long Acre.

Wiener Luftschißer Zeitung, monthly, 12 kronen per annum. 1, St. Annahof, Vienna.

L'Aerophile (14th year), 1 franc per month. 84 Faubourg, St. Honore, Paris.

L'Aero-Revue, 75 c. per month. 4, Quai Pêcherie, Lyon.

L'Aerostation (quarterly), 2 francs per annum. 14 Rue de Goncourt, Paris.

L'Aeronautique (10th year), 2 francs 50 c. per annum. 58, Rue Jean Jacques Rosseau, Paris.

Bulletin de l'Aero Club (Swiss), 5 francs per annum (six numbers). Imprimerie Haller, Berne.

The list is not complete, but it shows the interest that is already taken in the subject, and provided a sufficient incentive is given, any purely mechanical problem can be solved.

PREFACE—continued.

SOLAR HEAT.

There is a Latin inscription which is only carved on sundials, *Sine Sole Sileo*—Without the sun I am silent. Shut out the sun's rays, and all source of power on the earth's surface would be cut off. Almost all this power at the present time goes to waste, or, as the scientific men say, is "dissipated." A little of it is used in warming the air, but the greater part is radiated into space. Sir William Siemens has estimated the solar effective temperature at not less than three thousand degrees centigrade, a rich bank on which England may draw when her present coal supply is exhausted. When the sun is nearly overhead he delivers on the earth's surface at the rate of one horse power, working continuously, for each square yard of surface, even after deducting the loss occasioned by the absorption of the atmosphere. This means that there is delivered on each square yard energy able to lift a weight of thirty three thousand pounds one foot in one minute, and this power is continuous, but at present goes to waste. The noontide heat is sufficient on a moderately sunny day, in less than the area of London, to drive all the steam engines in the world. M. Mouchot was one of the first to put this idea to practical test. He constructed a solar engine with a parabolic reflector, which concentrated the heat on a boiler in the focus, and drove a steam-engine with it. Mr. Ericsson invented an improved form, but the difficulty hitherto has been to lessen the cost of utilizing the heat. Whoever finds the way to make

PREFACE—*continued.*

industrially useful the vast sun-power now wasted on the deserts of North Africa, or the shores of the Red Sea, will effect a greater change in men's affairs than any conqueror in history has done. Professor Berthelot has spoken of electricity generated by the perpetual mobility of the ocean. If we could thus derive a cheap source of electricity for heating and mechanical power the problem would be solved.

WIRELESS TELEGRAPHY.

Much has been achieved in this direction since James Clerk-Maxwell, professor of physics at Cambridge, and Heinrich Hertz, professor of physics at Bonn, first moved in this matter.

Clerk-Maxwell predicted the discovery of electric waves. Hertz had sent waves across his laboratory, a distance of a few yards. Ten years later Marconi sent them across the Atlantic, a distance of 3,000 miles. How many people, say forty or fifty years ago, would have believed this to have been practicable?

Valdemar Poulsen, a Danish engineer, has improved on Marconi's system by the continuous waves. Practical results have already fulfilled theoretical expectations. Our day sees the harnessing of the ether. May it not mean the conquest of space and time? Another most fascinating invention is the apparatus of Professor Korn, of Munich, for "seeing by telegraph." It would seem that it will soon be possible, in view of the swift developments of telephotography, for two people to see each other while

PREFACE—*continued.*

they are talking at a distance of hundreds of miles. Quite recently another important discovery has been made in this direction. Mr. Hans Knudsen, a Dane, has invented a mechanism by which photographs and sketches may be transmitted any distance by means of wireless messages. Mr. Knudsen, who has been concerned with much research for the purpose of liquidifying air, claims for his discovery that, in addition to transmitting sketches and photographs, the invention can be applied to type-setting, so that the operator working in Fleet Street can set the same line on a machine in China or Peru. A glass plate, a transmitting machine and an aerial are the chief implements employed.

It may perhaps be interesting to know that when I wrote describing the unisophone, I had not the remotest idea that these discoveries would be made. I make no claim to be endowed with prophetic faculties, but I believe that many inventions that I prognosticated will be realised, as some of them have been already. There are many things yet to be discovered. As I write these lines there comes to my mind the words of Emerson :

“ We think our civilisation near its meridian,
but we are yet only at the cock-crowing and
morning star.”

Boscombe,
Hants.

HERBERT GUBBINS.

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PART I.

CHAPTER I.

THE GREAT SCIENTIST.

SIR THOMAS BROWNE was an important scientist who had startled the world from time to time by some great discovery in science. He was about fifty, stout, and of short stature. His hair was thin and grey. His face bore a benevolent expression with the broad forehead which Lavater has decreed is the hall-mark of one with inventive faculties. He wore a pair of gold-rimmed glasses on his nose, over the tops of which his grave eyes were often peering. He was always very carefully dressed, given to wear very large, white waistcoats, across which he carried a massive gold chain with large seals attached to it.

Sir Thomas Browne was Regius professor, professor emeritus of physical science in one of the leading scientific institutions in the country, and corresponding member to all the royal societies on the other side of the water. None had made greater discoveries and strides than he had in the science of electricity and radioactivity. It was he who increased the spark in the secondary by a condenser in the primary. Later it was he who passed the spark through a vacuum and thus won European recognition.

By exhaustive experiments Sir Thomas Browne calculated that the conductivity of gas estimated per molecule is about ten million times that of an electrolyte. This monumental calculation alone promoted him to the front rank of electrical physicists. It was he who first discovered the cathode rays and made some important improvements in the Roentgen rays. Yet he carried the fifty and odd letters following his name with so much modesty as not to remember them.

Sir Thomas Browne was greatly interested in airships. At a meeting of scientists, in referring to aerial navigation he said :—"The present-day system of journeying is circumscribed to the earth. But the potentialities of the dirigible airship shall know no such limits. Free as a bird it shall circumnavigate the sphere and shall soar from pole to pole. Reform is in the air. Present-day means of travel shall be revolutionized completely; Cook's will have to issue a new itinerary for their excursions, and the City clerk shall shake the dust of his country off his feet and spend his seven days' vacation in seeing the sights of the world. The London merchant may spend his week-ends at his bungalow on the Nile. The era of cosmopolitanism is dawning."

I have instanced his versatility and his benevolence and will now meet his eccentricities, the mildest of those of genius, and his humour. So much was he wrapped up in science, that he would obviously call common things by some scientific name. For instance, he once called Lady Browne an "enanti-morphis" much to her displeasure. On another occasion he flabbergasted the butler by asking him for his "tetrakaidekahedronal cells," and because he lingered disconcertedly near him, he told him he might find them in the "parallelopipidal partitionings." The astonished butler finally discovered that his master wanted a box of cigars, and that they were to be found on one of the shelves in the library. He afterwards remarked to a fellow servant that he had seen a Cabana cigar and had sometimes smoked a Flor-de-cuba himself, but he had never before heard of such a cigar as that which Sir Thomas had mentioned. He supposed that they were only smoked by rich men who could afford to pay for cigars with such a long name.

He possessed a magnificent residence in the suburbs. It was an imposing building of picturesque beauty, allied with all the comforts and conveniences

which modern ingenuity and science have rendered possible. A broad flight of stairs led to a spacious hall. The interior was stately and beautiful, its dark oak furnishings relieved by the massive gilt frames of the portraits that hung from the walls. The rooms were richly furnished with costly articles comprised in statues, chairs, tables, small cabinets and luxurious couches, making them look very artistic. Gold-coloured were its curtains and draperies, hung round with fine old oil paintings, the works of great masters and of priceless value. The floors were covered with costly carpets. Numberless curios too, stood on the old oak-cabinets and silver and enamel tables, white statuettes, bits of exquisite old china, and tall oriental jars. Sir Thomas Browne's laboratory, admitted by all scientists to be one of the best in Europe, stood at the top of the house. It was a large room with a glass roof, lighted at night by a powerful light from above. One side of the room was book-lined from floor to ceiling, the titles of the large volumes ending either with "ism" or "ology." On the top shelf was a row of human skulls. In the centre of the room stood a long table covered with an array of brazen, if silent instruments, and which it is no libel to say Lady Browne has often called "telescopes." In another corner of the room, imprisoned within a tube of glass and deprived of its power, lay a scintillating, writhing, protesting thing—the world's strangest and most awful element of energy—radium, far more like a living creature than a cretin.

The great scientist spent most of his time in his laboratory, perusing some of the books on the shelves or investigating something new in science, wearing a skull-cap and a long black robe. That such a person should desire to prolong his life beyond the allotted span seemed impossible and reflected no great credit to his discernment, for his trials were many. Yet he yearned to shuffle off this mortal coil

of the year 1905 and re-awaken in the year 2905, after a sleep of a thousand years. He was not weary and desired a long rest, but he was consumed with a great longing to see the results of the wonderful inventions that he and other scientists had prognosticated.

The past as to its general features was known. It was like a romance—unread indeed, but of whose contents someone has imparted to us all the chief incidents, but it was of the future he wished to know—the destiny of Man, and to consider whither was tending the great stream of social evolution, combined with scientific discovery now so brilliantly and with such momentum surging through the world.

He selected, therefore, as the time which was beyond all others most likely to interest him, a date one thousand years further onward in the track of man's evolution, that is to say, the year 2905 A.D. He calculated that the great democratic movement of our age with all its anarchies and confusions would have by that time spent its force, that the full history of democracy would then lie behind him, and that probably under some Parliament of Man, the World, fully inhabited, would be at peace with itself, and the millenium, so far as attainable on this earth, be seen blossoming around him.

Visions of men flying through the air in large airships and floating through the skies day after day rose plainly before his imaginary eyes and visited his dreams at night. He knew that in the ordinary course of events he could not live for so long a period. Three score years and ten was the allotted time for man's existence on this terraqueous globe. The elephant was the only animal which lived the longest length of time, having been known to live for over two hundred years, but he did not believe in the doctrine of metempsychosis or in the transmigration of the soul after death from one animal body to another. If this metempiric state was possible, he might be able to discover a way of passing through

the form of five elephants and live for over a thousand years. This would not do, however, for at the end of that time he would be endowed with the instincts of a dumb animal and not with the intellectual faculties of a man. The object of his desire would therefore be lost. As an elephant roaming through a forest or embellishing the corral of a Zoo, the progress of science would not interest him. He must possess human intellectualism. Could he, the greatest scientist that ever lived, be an exception to the ordinary rule and be permitted to live for ten centuries? No, decidedly not. He must pass into the great oblivion like other men, perhaps shortly, and fade away into insignificance like a meteoric body that is transiently luminous. The laws of nature had decreed it. Why did he reflect on such an utter impossibility? Was he meditating suicide? He was—but a revised edition of the old complaint. He must somehow, by hook or by crook, sleep for a thousand years and re-awaken in the days to come, when the things of the future that are secret now, will be matters of ancient history. What a prospect! Could he, by science, defy the grim form of death for over ten centuries and cheat nature of her infallible laws? How science had changed and improved man's condition and had to a certain degree lengthened his life by arresting the progress of disease! Was it therefore possible to discover some element that would allow him to live for one thousand years without emaciating him?

He had devoted nearly the whole of his life in trying to prolong the ordinary existence of man and was now on the border of a great discovery. Radium would solve the problem, if it could, by some means, be introduced into animal nature it would produce somnolence, which would last according to the amount proportionated or intromitted. Mysticism, charlatanry and fiction have never tired of dealing with the possibilities of the discovery of the elixir of

life. If his discovery was successful, he would find the same in radium.

He used to spend four hours every day in his laboratory, now he wholly gave twelve hours to his favourite room, engaged in a new and great discovery. The remaining time he devoted to eating, and then he swallowed his food so quickly that Lady Browne would stare at him with astonishment and scold him for his vulgarism, as she styled it. One day at one of her dinner-parties, he suddenly electrified his friends with a violent fit of coughing, combined with a series of kicks against the table, sending a large jar of "terrine de fois gras" on the floor, and a bottle of chablis to join it. By a dexterous flanking movement, he succeeded in emptying the contents of a large basin of turtle soup in the lap of the Dowager Countess Brabazon-Quin, who sat next to him. His struggles only ceased when the rebellious little bone that had refused to go down with the rest of his food, was coaxed to finish the journey.

CHAPTER II.

THE ELIXIR OF LIFE.

SIR THOMAS BROWNE sat in his laboratory, fingering the mechanism of a marvellous machine that stood in the centre of the room, with the delicate touch of a scientist whose finger-tips are sensitive to sensations. His face was beaming with a smile and there was a bright look in his eyes that denoted that something unusual had happened to please him. After devoting the best part of his life to unremitting labour, his wonderful brain had constructed and perfected a machine that would prolong his life for one thousand years. He was almost struck dumb with the novelty, grandeur and inexplicableness of the idea, when success eventually came to him. He thought of the seven wonders of the world, the Egyptian Pyramids, the Mausoleum erected by Artemisia, the Temple of Diana of Ephesus, the walls and hanging gardens of Babylon. What were these in comparison with his new and great discovery! Could the Collossus at Rhodes, the statue of Jupiter Olympius by Phidias, and the Pharos or watch tower of Alexandria compare with the elixir of life?

The machine consisted of an X-ray apparatus. In place of the ordinary Rontgen ray tube, was a Crookes tube, in the centre of which was a piece of radium, darting forth brilliant sparks in boundless profusion, and with the most vehement energy. This tube was attached to a powerful battery by means of a Faradic coil. To this battery was connected a long thin wire at the end of which was attached a kind of hood of soft leather, which, enveloping the whole head, extends forward and over the ears so that the face alone remains uncovered. Just at the point

where the cap rests upon the ears, the material was cut away so as to allow their free protusion. A kind of metallic saucer, just deep enough to afford the necessary room, is then placed over each ear and sewn to the margin of the hood, just over the ears. Each of these metallic ear-pieces is provided with a hollow, metallic nipple, situated just above the ear and communicating with the enclosed air-space. A piece of indiarubber tubing of small calibre, twenty-four feet in length, is attached to these nipples by a forked joint. The other end of the tubing is then connected with the reproducing mechanism of an Edison phonograph. A powerful influence is exerted upon the acoustic associations, by the machine through the wire caused by the radium and by harmonic vibrations derived from the phonograph. The nature of radium injects itself into the tissues of the body and circulates over the whole system. The body is like a storage battery, which accumulates the radium and uses it, while life is still suspended. When this supply is exhausted the subject wakes up. The person being in position, the apparatus and the phonograph are both set to work. These are the results—a marble-like appearance of the skin, a coldness to the touch, a remarkable increase in weight, a disappearance of the usual elasticity of movement and an unaccountable languor. Fatigue soon comes, and with it comes drowsiness, and it is precisely in this state, half asleep, half waking, that the musical vibrations surging into the internal ear and on to the "sensorium," produce effects alike transcendent and indescribable. When once sent to sleep the subject will not wake till a thousand years have elapsed, provided he has been sufficiently radiumized. The acoustic hood may be removed, but he will still sleep on. If, however, he wishes to sleep for a short period, say, only four years, by a slight alteration of the machine, a small portion of radis-activity will be transfused to his body, and he will awake again at the end of this time.

Sir Thomas Browne did not intend to publish his discovery to a sceptical world. Lady Browne's favourite Persian cat was, however, honoured by his confidence. "Fairy" promptly disappeared. But after three months the cat returned. The suppressed excitement of Sir Thomas Browne at the success of his wonderful machine was such that he made awful mistakes, and partly, because he was always thinking of the things he would see in the thirtieth century. In church on Sundays his thoughts would wander away from the service and dwell on the far-distant future. These reflections would be rudely disturbed by the organist, who had a peculiar way of giving violent jumps on his seat like an electric eel, and jerking his head forward like a wry-necked bird.

All his interest in the affairs of his every day life evaporated. The only mundane thing that appeared to retain any charm for him was the latest inventions, the Channel Tunnel (submarine, Aerial and Electric railway), communication with the other worlds—matters which everybody said were not of to-day, but things of the future with which he was more closely concerned now, than attending the scientific societies, and giving lectures; or going to the opera, to balls and dinner-parties, for his dream at this period, naturally dealt more with coming events. Enforced attention to the strictly realistic side of life, while his heart pulsed in realms of nebular, scientific possibilities, produced such a depressing effect upon his spirits, that he suffered from cerebropathy—the morbid affection of an overwrought brain. He had suspended the life of "Fairy" for varying periods by his machine. Why should he not at once experiment upon himself and sleep for ten centuries? The temptation was great, —and—he—fell.

A great difficulty however presented itself to him in the form of Lady Browne. That lady would not approve of his going to sleep for so long a period. She

would think that he was dead, and would then have him buried in the family vault. He shuddered involuntarily at the thought. He must have an interview with her, and reveal to her his great secret. If she did not consent, then he would sleep in some unknown spot, so determined was he in his object. So, replacing the machine at once in its case, and removing his skull cap and long black robe, he went to Lady Browne's boudoir to obtain the desired interview. When he entered the room Lady Browne was lying on a silken couch, reading. She looked at him in astonishment, for he was not often seen in any part of the house, except the laboratory and in the dining room.

"Helen," he began, as he took a chair and sat opposite to her, "I have some very important news to tell you, something that will greatly interest you."

Lady Browne had wished that Sir Thomas had stopped in his laboratory when he had entered the room, for she had got to an exciting part of an interesting story. But when he said that he had some important news to tell her, and had expressed it in such glowing terms, she dropped her book, and longed to know the nature of his message.

"Is it that you have decided to leave that horrid room of yours and accompany me on my European tour?"

"No," he answered coldly, for he did not like his laboratory styled a horrid room. "And please do not call my room 'horrid' in future," he added indignantly.

"But it is a horrid little room," said the pertinaacious lady. "Those dreadful skulls make it bad enough, but that frightful skeleton in the glass case makes it look ten times worse than a mortuary. Eugh! I would not have such things in my room for the world!"

"But I do not want you to have my treasures," said Sir Thomas Browne.

"Treasures," snapped the lady. "Do you call those disgusting things treasures? And do you think I want to play with them as you do?"

Sir Thomas Browne had received this avalanche of contemptuous words with indifference. But he could stand it no longer. He got up abruptly from his chair and paced the room in an angry mood. Had Lady Browne called him all the names she had called his room he would have taken no notice whatever. But that the room he worshipped should be termed "a horrid little room" and worse than a mortuary, he could not and would not stand.

"Thomas, why don't you come and sit down," said Lady Browne, "instead of marching about like a regiment of horse-soldiers?"

He took up the cushion he had been sitting on and threw it at the provoking lady. Imagine then his shame—his horror—his distress, when the cushion missed her and upset a dish of strawberries and cream that stood on a little table by her side, on her new silk dress. The cushion could not be recalled, and just at this moment the door was thrown open and the butler announced the "Hon. Lady Codrington and the Countess Egerton." Sir Thomas made his escape from the room and rushed back to the laboratory. That night, when in fear and trembling he attended the dinner-table, he found that Lady Browne was laid up with a bad headache, much to his relief. This headache lasted for three whole days, but on the fourth, she was present at dinner as usual. No allusion was made to the little event described beyond her frowning at him, but he kept his eyes fixed on his plate, thinking how to begin his apology to Lady Browne for his atrocious act. For that evening he decided to see her, and apologize, though he shunned the task, and to make another attempt to unfold to her his great discovery, and to obtain her permission

to sleep in some sequestered place without any fear of being molested. She was sitting in her carven ivory chair, busily writing letters, this time he entered the room, and did not appear to have noticed him. To attract her attention he gave a little cough. She gave a slight start and looked annoyed.

"Thomas, how you startled me. What do you mean by intruding in my room in this manner?"

"I am very sorry to disturb you, Helen. Are you very busy?" he said, pointing to the unfinished letters, for I am anxious to tell you something very wonderful. Would you like to know what it is?"

"Yes," she said, "Provided you do not behave in such an ungentlemanly manner as you did before. I am surprised that you should so far forget yourself, as to give way to such a violent outburst of temper. Why, what do you think the Countess said? She said, 'My dear Lady Browne does Sir Thomas often act towards you like this? You should get a divorce.'" "Helen," he said, "it is partly for this reason that I came to see you and apologize."

"And will that take the stain out of my dress?" retorted Lady Browne sarcastically.

"My other object for wishing to see you was to acquaint you with the great discovery," said Sir Thomas, ignoring her last remark, "a discovery that will revolutionize medical science. I have found the elixir of life, not in the form of a liquid, but in the shape of a machine."

"Your statement is ambiguous," said Lady Browne. "You speak in enigmas. Kindly explain yourself."

Sir Thomas Browne cleared his throat and proceeded with the sententiousness of a class-room lecturer. "I have invented a machine that will prolong life for one thousand years. Can you conceive what this means? I shall go to sleep and wake in days to come, to see the progress that science has made."

"And do you expect me to believe such an exorbitant story?" said Lady Browne.

"Of course you doubt my discovery, quite natural, too. This is a doubting world. Men once ridiculed the idea of the steam engine, of chloroform, the telegraph, or the telephone. How many people in the world, say fifty or sixty years ago, could have predicted the discovery of argon, and hundreds then would have scoffed at the notion of telegraphing without wires. Not until a thing is known and proved to be true, will man be convinced. When the elixir of life is known to the world—for it will be known, though I shall never publish it, men will soon recover from their astonishment and say, 'How simple! Why did no one think of it before?'"

"How is life prolonged?" inquired Lady Browne.

"By radium, my dear—radium—the world's latest and most mysterious substance; the discovery of which marks an epoch in the history of our knowledge of nature. It constantly throws into space, streams of corpuscles at the speed of one hundred thousand miles per second, and yet with the expenditure of this titanic energy, there is no exhaustion of the properties, so mysteriously stored in this wonderful metal, and so far as anything that has yet been observed can testify, the radiation may continue with unimpaired activity for hundreds of years, potent enough to emit its characteristic light for all time."

"But how can radium prolong life?" asked Lady Browne.

"This is the most important part of my discovery," said Sir Thomas. "If you care to come to my room, I will show you the machine and try to explain the working of it."

Lady Browne bowed acquiescence, and he led the way triumphantly to his laboratory.

The room was in darkness, except for a small faint light, which seemed suspended in the centre, not unlike the light of a glowworm.

"What is that?" asked Lady Browne, moving closer to her husband's side.

"That is the light from an infinitesimal particle of radium. But wait till I set the machinery in motion and see what happens." He closed the door as he spoke, and pressed a small white button near him. Instantly a long, thin blue spark came away from the battery, along the Faradic coil, and made its way towards the tube. It had no sooner reached its destination, than there was a loud explosion like the report of a gun, followed by a blinding flash of light. Lady Browne, white and trembling, drew back and stood near the wall. "Do not be afraid," said the great scientist, quietly. "It is perfectly safe."

The tube was now a sparkling globe of brilliant fire, flashing innumerable points of light in all directions. It was radium, exerting its mysterious qualities, a hundred times more illustrious than the brightest light. It filled the room with its great splendour, making it lighter than day. The steady gleam of the penetrating eye of that white element, glowed phosphorescent, rejuvenating, triumphant on the scientist and his wife. It greeted them, mocked them, gloried over them, and tried to dominate. It reminded them of the omnipotent, omniscient eye of God. It seemed to look through them. On a fluorescent screen behind them they could see the shadowy forms of the framework of two human bodies—a photograph of their own skeletons. For nearly twenty minutes they stood gazing at this wonderful phenomenon of effulgence. Lady Browne, in fear and trembling, and Sir Thomas Browne with suppressed excitement. Then suddenly the light went out, and they were left in darkness. Sir Thomas switched on the electric light in his laboratory, and turned to Lady Browne and said, "What do you think of that display?"

"Wonderful, but how terrible."

"If you had donned the acoustic hood, you would

have slept for two years," he said. "Let me explain how. You see that Crookes tube. Well in there is nearly all the radium that has been found sufficient unconfined to blow a man into impalpable dust. If one person had five pounds of it he would be one of the richest of human beings and have the world at his mercy. He could annihilate the earth. Now 'electrumite' (for this is the name I have given my new discovery) injected into the human system acts like an anæsthetic. It deadens sensibility and produces somnolence. It also causes rejuvenescence. You become radiant matter and live in that state of catalepsy from varying periods, according to the amount injected into your body, from one day to a thousand years. This amount is controlled by a small lever in the battery which regulates the supply of radium by an electric current. No particle of radium has yet been observed to give the slightest indication of abatement of its marvellous characteristics. It will last for an infinite time, throwing out particles at the rate of hundreds and thousands a second. That this extraordinary manifestation should continue for long periods, without the slightest indication of decline is little short of the miraculous."

"How did you find out that radium could prolong life, Thomas?" asked Lady Browne.

"From an interview I had with Professor and Madame Curie, a short time ago in their laboratory in the Ecole de Physique in Paris. He suggested to me that there was a hidden power in radium that could extend the duration of life by long periods. I thought no more of the subject, till one day while ruminating on the progress of science, and what this world would be like in a thousand years' time, and wishing that I could be in existence then, it suddenly occurred to me that I might accomplish my desire, by acting on M. Curie's intimation. It was a supernaturalistic idea, but I have been successful and greatly exceeded M. Curie's calculations. I do not agree with Hux-

ley's declaration that in the interest of progress, every scientist should be shot on his sixtieth birthday. Although it was merely another way of saying that the reverence which a hero who has survived the three score years and ten of allotted life must always receive, is too frequently only the compassion of the young and strong for the discrepant and useless. "I shall live for several sixty years and shall satisfy my great desire," he continued, removing his black skull-cap for an instant and showing his broad forehead. "Long before I wake, the moon—the mysterious dwelling-place of men unknown—will no longer be an inaccessible place. Space will no longer contain regions which man will not be able to cross. Airships will be even as motor cars are now. The heavens will be darkened with the multitude of their sails. Aerial policemen will regulate their flight, and teach them the rule of the road in skyland. Cheap summer tourist tickets will be issued to the North Pole and winter ones to the Sahara, and we shall have airship costumes, airship periodicals and airship ailments, and I shall be able to see it all," he added in an excited tone with a wave of his hand to assist his glowing declamation, while his usually pallid face was aglow with excitement. "But that is not all," he continued, "I shall awaken a young man—awaken a young man.

"Yes, with the prolonging of life comes rejuvenescence. That is perhaps the most important part of my discovery. I shall be better able to enjoy life more in the thirtieth century; beside, I shall live longer after I awake from my long sleep. It would be but poor recompense to my discovery to live for one thousand years and die a few years after, without seeing half the great changes in the world."

"Are you sure of this?" said Lady Browne slowly. "How can this be possible?"

"But it is possible," said the great scientist, with a little note of triumph in his voice. "From the very

infancy of science wise men have tried to lengthen the span of life. Foremost among them we find the Arabian Geber, Zosimus, the Theban, Hermes Trismegistus, the Jewish Maria, De Lisle and Raymond Lully. Each in his turn failed, but they have rendered me good service, for I have found out why they failed—where they were wrong. I have overcome all obstacles and succeeded beyond my wildest dreams. Every forty years of my great sleep will make me a year younger. So that in ten centuries, I shall be as I was when twenty-five years old. Well, dear, what do you think of my machine? I trust I have made the 'eclaircissement' of the working of it clear to you." Lady Browne praised his skill in constructing such a wonderful apparatus—praises that filled Sir Thomas Browne with ecstasy, coming from his wife. "It is very meritorious," she said, "and you are to be congratulated on your success. You did not explain why the pictures of the skeletons were seen on that screen."

"That is easily accounted for," he answered. "The fluorescent screen is painted on one side with collodion varnish, and over it is sprinkled—in a wet state—some calcium tungstate, a white powder. In a darkened room, this prepared screen becomes phosphorescent under the action of my machine, and upon the surface is clearly delineated the contents of, say a purse. The effects are shadowgraphic only."

"Have you acquainted M. Curie of your discovery?" "Not yet," he said. "I intend to make another experiment on a subject for twelve hours first, and then I shall inform him of my success and get him to promise not to disclose my secret to the world. Have I not given the best thought of my life to the subject of the elixir of life? Have I not delved sufficiently into the mysteries of life to learn how the ravages of years may be stopped? This you will understand, is a thing, not for the world to know. The laws of nature are of divine institution. To set them aside, to violate them—that

is a crime. 'These secrets will be learnt in time, but that time has not yet come. Evolution must be shown in order to be permanent and beneficial. Helen," he said, turning eagerly to his wife, "Would you like to experience the sensations of my machine, and permit me to send you to sleep for a short time only? Supposing I pass into your system a particle of electrumite, so minute in its entirety, as only to be seen under that instrument." He pointed as he spoke to the powerful lens which had been specially prepared for him at Leipzig. "Enough to send you to sleep for twelve hours," he added almost decisively.

"Yes, but stop, let me see," she said, consulting a small tablet and making hieroglyphic notes on it with her gold pencil case. "'To-morrow evening I am going to see 'Othello.' The day after I have promised to open a bazaar, and the next day I have been invited to attend Lady Trellington's 'At Home.' Supposing I don the acoustic hood to-morrow morning at six, and sleep till six o'clock to-morrow night, I can dine then, order the brougham, get dressed and drive to the theatre. It would suit me admirably. I will instruct Mademoiselle to wake me."

CHAPTER III.

AN EXPERIMENT.

ACCORDINGLY, next morning, at precisely the hour appointed, Lady Browne knocked at the door of her husband's laboratory, and in response to his "Come in" she entered the room. She noticed that everything had been put in readiness for her coming, and that a lounge had been placed near the machine for her to lie on.

"Are you ready, Helen?" he said. "I have limited the supply of electrinite by the regulator, and you will wake at six o'clock to-night."

"I am quite ready," she said, reclining on the lounge. "Are you quite sure that I shall waken again this evening? I would not miss my engagements for anything, and you are sure that I shall not sleep the sleep of death," she added in a low voice. "I am afraid to die, Thomas."

"I am quite sure you will be safe," he replied reassuringly, as he fastened the acoustic hood on her head with tremulous fingers and started the machine in motion. The chuck, chuck of the dynamo was quickly answered by the sparkling whirr of the static machine. The room now seemed full of lightning, while sharp reports followed one another in quick succession while they were lost in one stream of rapid-fire artillery. She trembled, breathed faintly and gradually closed her eyes. Her muscles became endurated and a death-like appearance came over her face which startled the scientist. She was terribly white and her skin had the clarity of the finest marble, and she was very cold. In a few minutes the vibrations of the engine ceased, and with it the fierce emission of sparks from the Crookes tube. Lady Browne was radiant matter. She was perfectly rigid; she was like a marble statue. He removed the acoustic hood and laid it on a table and went out of the

laboratory, locking the door carefully behind him. All the day he went about in a nervous, agitated manner, and just before six o'clock went back to his laboratory to await Lady Browne's awakening. A curious feature of the regime he noticed was that she was still white and cold.

He took out his large gold chronometer and laid it on the table. It was eight minutes to six. Lady Browne would soon arouse from her sleep. Seven o'clock came and she still slept. What did it mean? Had a compensating penalty overtaken him for lifting the veil? He analyzed his formula and carefully examined his machine. Still he could find nothing wrong with the theory, or the formula. Had he killed her? Great Heavens, what a terrible revelation. No, it could not be! He went to her side and caught her by the arm, called loudly to her and tried to raise her, but her weight was so great that this was nearly impossible. He shook her, kissed her and tried to breathe into her some of the intense vitality that filled him, but she took no notice whatever. "You are sure I shall not sleep the sleep of death." The words seemed to burn into his brain. Again he examined the machine, and suddenly started back with a look of surprise and astonishment. The hand of the indicator pointed to twenty-four hours. But what had moved it? He was positive that he had timed the length of Lady Browne's sleep for twelve hours. On further reflection he came to the conclusion that the wire of the acoustic hood must have moved it while he was adjusting it to her head. He went to the window and looked out. The shadowy form of St. Paul's dome showed plainly in the distance, while a few lights winked here and there. He sank into a chair, and shortly fell asleep. His sleep was haunted by strange dreams. He dreamt he was lying on a table surrounded by doctors. He could not move a muscle and the power of speech seemed to have left him. At the same time he was conscious

of what was going on around him. "Never in the whole course of my career have I met with such a remarkable case as this," said one, whose voice he recognised as that of his physician. "Very strange," murmured another in assent. "We have proved beyond doubt that Sir Thomas is dead, but we cannot arrive at the cause of his death." Great Heavens, they are holding a post mortem examination on him. "He unaccountably disappeared, and after several months of careful searching we found him lying in a vault covered with dust, while by his side we found an empty glass, a letter and a sheet of paper bearing the words, and in his own handwriting:—"

"Receipt for Liquid Sunshine to be used to prolong life.

"One part of sulphate of quinine, fifty thousand parts of water. Stir until dissolved in a glass. Insert a tube of radium until sufficient radio-activity is developed to cause the water to throw off violet or ultra-violet rays. Drink it as you would sauterne or champagne." "This is the contents of the letter," said the doctor, reading it aloud:—

"To Professors M. and Mme. Curie, July, 1905.

"Fellow scientists,

"I have found in radium the elixir of life. Never before in the history of the world from Sardanapalus to Sherry has such a thing been heard of. The swallowing of these spectrum rays will cause nothing more than a mild exhilaration such as is produced by sauterne. It may possibly mean a headache or it may produce a halcyon and hilarious time. 'Liquid Sunshine' so-called is nothing more or less than the fluorescence of certain liquids under the action of radium salts. Almost every scientist knows that certain solutions which may be used as medicines are rendered fluorescent by radio-activity. Take, for instance, solutions of quinine æsculin fluorescin and orcin. I have found all these beautifully fluorescent under radium rays. When any of these drugs are exposed to radio-activity they

give off the violet, the ultra-violet and greenish rays of the solar spectrum or rays of sunshine. If a person should take a capsule of quinine solution and then expose himself to radium rays, all the violet and ultra-violet rays would be liberated within him and all his interior tissues would be, so to speak, bathed in liquid sunshine. By leaving a tube of radium in a glass of water a certain length of time, the water becomes radio-active in proportion to the time it is exposed. The longer it is allowed to remain in the water the longer will be the sleep of the person who drinks it. Care should be taken, however, that the water is not excited to a radio-activity powerful enough to act as a poison if taken internally or it would destroy the internal tissues. To say I am pleased with the result of my discovery would be saying very little. My brain reels when I think of what I shall see in the distant future. I have calculated that my sleep will last for one thousand years. Do not wake me or on any account let me be awakened by others before that time. If this is done I shall awaken a madman. I will now close this letter. Remember me to all my students.

“ I remain,

“ Yours sincerely,

“ T.B.”

Like the pictures of a kaleidoscope, the scene again changed. It seemed to him that he was lying in his coffin, conscious of riding in a hearse followed by a long train of carriages to judge by the sound of carriage wheels. He could not move or speak, although he was quite conscious of what was going on. Ever and anon he could hear the knell of the death bell. Great God, what a fearful sensation. Beads of perspiration stood out on his forehead. Then suddenly the hearse stopped and he felt himself dropping down, down, down, into a bottomless abyss. Then with a long shuddering sigh he—AWOKE. When Sir Thomas came round, his first sight was

Lady Browne bending over him, calling him by his name, shaking him. "What terrible dreams I have been having," he said, rubbing his eyes. "What do you think of your sleep, Helen?"

"It is wonderful," she said, "but I do not believe it would be possible to sleep for ten centuries. I shall not allow you to experiment for so long a time upon yourself." Sir Thomas protested, but in vain. Lady Browne remained firm and would not give way. Again and again he approached her, but with no success. At last he made up his mind to sleep somewhere without her knowledge.

CHAPTER IV.

A LETTER FROM ROME.

WHERE could he sleep his last long sleep without being disturbed? This was the question that was perplexing the great scientist. While constructing his machine he had not given the subject a thought; now it rose overwhelmingly before him. Supposing he built a vault near his house, then Lady Browne's suspicions would be aroused, and if enquiries were made by his fellow scientists she would show them the vault. He must find some secret spot unknown to the world where he could sleep undisturbed for ten centuries. He had heard of a wonderful series of underground caves on the continent which led to vast halls and galleries in the depths of the earth. In one of these grottos he could hide away and sleep his long sleep.

Under the plea of lecturing in a Continental university he left England to explore the grottos of Han and Rocheford. Yet, although he examined nearly every recess in this great underworld with the help of guides, he was not satisfied that he had found the ideal spot.

Supposing, he argued to himself, that he was buried by the fall of earth or huge stones, then he had laboured in vain.

More than once these galleries and halls had been shaken by earthquakes and have reverberated with the crash of immense blocks of stone. In the Salle des Mamelons he was shown a large boulder lying partly buried in the floor of the vault. After going to Burgos in Spain to join some important observations on the eclipse of the sun, Sir Thomas Browne returned to England, disappointed in not having found a suitable place for his great sleep, not even

in the Grotte d'Adelsberg. He had penetrated farther into the depths of the earth than any man had been before, but still he had not been successful. Truly he had found some treasures which have greatly enriched him but he did not want money. He was already wealthy. Lady Browne was not surprised at his sudden appearance. It was no unusual thing for the great scientist to go abroad suddenly, for he was often lecturing in one of the great Continental universities, and besides he had gone for a few weeks' rest. But she could not understand his change of manner on returning. He seemed to have lost all interest in everything, even his machine.

She did not know how his expectations had been frustrated.

A few weeks later he received a letter from abroad, bearing an Italian postmark and carefully sealed. On opening it he thus read :

“ Rome.

“ My dear friend,

“ You will be surprised to hear from me, but I am writing to tell you of a great discovery I have made. To sum matters up in a nutshell, as you English people say, I have found a catacomb near Rome. Its date is different from anything of that of any known catacomb and it has been reserved for the burial of the highest Christians, so that the remains and the relics are quite different from anything which has ever before been seen. Suffice it that it is so situated that there is not one chance in a million of coming upon it. Before I publish my discovery I should like you to inspect the Catacomb. I cannot find words to express its beauties, but knowing you to be a great authority on archæology I feel sure that you will be more than interested when you have seen it. Do not disclose the contents of this letter to anyone, but come and see me as soon as possible.

“ Your sincere friend,

“ JULES MARIL.”

Sir Thomas Browne perused the letter with unusual interest and re-read it several times, and then wrote the following to his friend :

“ London.

“ My dear Maril.

“ I was delighted to receive your letter and to learn of your remarkable discovery. Allow me to congratulate you. I have an eager desire to see this catacomb because of a particular reason which I will explain to you when I see you, and I will unfold to you a great secret which I now hold because I respect your confidence. It would revolutionize ‘ medical ’ science if published and would cause a stir such as has never been felt since the history of mankind. But the world shall never know it. I shall start for Rome to-morrow by the Cunard liner ‘ Carpathia,’ and I shall be with you in a few days. Good-bye for the present.

“ Sincerely yours,

“ THOMAS BROWNE.”

When Maril received Sir Thomas’s letter he wondered what his secret could be. But he was not long to remain in ignorance.

CHAPTER V.

REVEALING THE SECRET.

"How did you find this catacomb?" The speaker was Sir Thomas Browne, and the person to whom the question was addressed was Monsieur Jules Maril, a typical Frenchman, immaculately dressed. He was the picture of aristocratic ease and grace. They sat together in his comfortable room overlooking the Corso. The night was cold and they had both pulled up their chairs to the unsatisfactory Italian stove, which threw out a zone of stuffiness rather than of warmth. Outside, under the stars, lay the modern Rome, the long double-chain of the electric lamps, the brilliantly lighted cafés, the rushing carriages and the dense throng upon the footpaths. But inside in the sumptuous chamber of the rich French doctor there was much of old Rome to be seen. Cracked and time-worn friezes hung upon the walls, grey old busts of senators and soldiers with their fighting heads, and their hard cruel faces peered out from the corners. On the little table in the centre of the room stood some very fine Etruscan sarcophagi and recumbent figures removed from sepulchres at Castel d'Asso and other sites in the neighbourhood. Amphoræ hung from the ceiling and a litter of curiosities strewed the rich red Turkey carpet. And of them all there was not one which was not of the most unimpeachable authority and of the utmost rarity and value. In another corner of the room was a table littered with countless bottles and bristling with retort test-tubes and little Bunsen lamps.

"Voulez-vous prendre un verre de vin ou fumer un cigare? While I narrate my story," said Monsieur Maril, offering both to Sir Thomas Browne. The

great scientist took one of the choice cigars and proceeded to light it while Maril went on :—

“One day I was suddenly called to the death-bed of a dying monk. He was, I at once saw, beyond all earthly aide, and I rather wondered why I should have been sent for when a doctor lived near him, while I lived some distance away. But it was not my professional aid he wanted, but to see me in order to give me some papers and plans of a catacomb of whose existence he alone knew. You see he had heard of my passion for catacomb finding. I do not know how the papers came into his possession ; the poor fellow did not live long enough to tell me.” He paused for a moment and then resumed the conversation. “It took me some time to find the catacomb ; the plans were so faded. It would be of no use for me to attempt to describe the catacomb to you. You may know the maze at Hampton Court, and the perplexity of threading your way to the centre and back again to the entrance even with full day over you. Imagine this Maze to be covered over with a solid roof and its bush partitions to be turned into solid walls of earth through which no ray or glimmer of light can pass. Then extend this area to nearly twice the size of Hyde Park, and then you may have a little idea of the greatness of my catacomb. You can conjecture the horrible possibilities awaiting anyone plunged into this under-world of narrow passages suffocating with the smell of earth, when voices lose all resonance and nothing occurs to mark the progress of your way.” He flicked the ashes from his cigar and added : “But you should see the riches in the catacomb. It would be no use for me to try to describe them to you. There is only one thing, and that is for me to take you there.”

“That would be splendid. I feel impatient to see it.”

“Supposing we visit it to-morrow evening. I say evening because I do not wish our movements to be observed ; it might arouse suspicion. There is something that I should like to speak about. You spoke of a

secret in your letter, Sir Thomas. I have since been wondering what it is," said Maril, leaning back in his chair. The great scientist puffed away at his cigar in silence for a few minutes and then replied, "My friend, in revealing to you my secret I wish to solicit your secrecy in the matter. There is only one man beside yourself who shall be acquainted with it, and that is Professor Curie. Before I speak about it, however, I wish to come to business terms with you about this catacomb of yours and to make a suggestion. Will you disclaim all connection or possession of the said catacomb and not write or publish anything concerning it that may lead to its discovery. Name your own figure and I will write you out a cheque for the amount."

"What are you driving at?" said Maril springing from his chair and facing the scientist. "When the point has been settled I will tell you," quietly answered Sir Thomas Browne.

"Sir Thomas, for the sake of our great friendship I am willing to forfeit all claims to the catacomb. Do not mention money again. I have more than I need already. What is your secret?"

"My secret, Maril, is this. I have discovered electrum, the elixir of life." His grey eyes fairly glittered with triumph as he spoke, and he stood up and looked across the room as though some applauding crowd conjured up by his imagination.

"What do you mean," asked Maril.

"I have found that electricity and radio-activity combined form an element which on being introduced into the human body extends the duration of life for varying periods according to the amount admitted into the system. My friend, there are degrees of affinities between radium and electricity. The more perfect the affinity, the purer the element. What is affinity? Merely adaptability, the tendency which the particles of dissimilar bodies have to combine and form new compounds. It is as true as of chemistry. Two molecules with totally different elements combine and form a third more

complex than either, but with properties and functions none the less staple. Now this element which I have discovered is a force of extreme subtlety, inasmuch as it can traverse space, when ordinary electric currents and magnetic lines of force would fail, and acts essentially like the form of energy known as electromagnetic waves and which are utilised to wireless telegraphy. These waves pass through the tissues of the human body and cause somnolence. When current electricity passes through an electrolyte it carries with it certain minute particles of matter called 'ions,' when it becomes ponderable until it reaches the cathode terminal; reaching this, the 'ion' deposited and the current again becomes imponderable and flows along the solid metal conductor again. Hence electrolysis is the secret of my elixir of life. Electrumite is the name I have given to the new power."

"What is the prolixity of your prolonger of life?"

"One thousand years," rejoined the Scientist. "Now you know why I want this catacomb."

"One thousand years," echoed Maril, looking incredulously at the scientist and appearing to doubt the sanity of his mind. He knew that Sir Thomas Browne was a great inventive genius—a crank, some people called him—but he had never had a notion that the scientist had been at work on such a grotesque idea as this. He had expected him to say that it would be possible to prolong life for a few months—but one thousand years.

"You cannot mean it," he said aloud. "I am not learned in such matters, as you know, so I can't argue about it, but it seems to me such a preposterous idea."

"Not at all. As a physician, you know that all death and disease spring from the decay of the arteries. Now this may be prevented by an electric current from my machine which cleanses the arteries and other organs and restores them to their original elasticity and health."

"Your judgment is quite feasible, but at the same

time I cannot believe that you will be able to live for ten centuries."

"I shall, provided two things do not happen. Firstly, if I am not discovered and buried alive. That is not probable in this catacomb, at least not for years to come, and by that time men will understand the borderland between life and death. The scientific investigators and the ordinary medical man of to-day possesses but little accurate data by which he can declare positively whether a person in whom life is seemingly extinct is really dead or not. Many cases have been cited in which a cataleptic trance had been mistaken for death by medical practitioners and certified as dead."

"You do not pay a great compliment to my profession," said Jules, "but what is your other reason for believing you may not awaken?" he broke off.

"The possible expiration of this earth before ten centuries have passed."

"You mean the end of this world may come?"

"Precisely."

"Supposing your theories are incorrect and you awaken, what a great deal you will see in the thirtieth century. There is one thing I fear, however. Will the strain prove too much for your brain? The mind is a very delicate piece of mechanism, and a shock such as you will experience may impair it. To speak plainly, Sir Thomas, you may become a madman."

"Your predictions are not very hopeful, my dear Maril, but I have studied the matter carefully, and I do not think this will be my fate. I have prepared myself for what I shall probably see."

"What is that?" interrogated the French doctor. "Aerial navigation for one thing," answered the scientist.

"By what means?"

"The airships."

"But surely airships will be a thing of the past in the thirtieth century," said Jules Maril. "They have been used in the present day."

"With what results?" questioned the scientist, with a strange smile on his face. "Practically failure. The airship of the thirtieth century compared with the airship of the present day will be ten times the comparison between Stephenson's old "Rocket" and one of our great expresses of to-day. It will have reached the limit of perfection by that time and will be one of the principal means of transit. Besides I shall awaken as I was twenty years ago," he added.

If Maril had felt uncertain as to the saneness of the great scientist's mind before, he now decided the question, but thought it best to humour him. He therefore listened to the scientist's explanation of his last words as an attendant in an asylum would listen to a madman's story.

CHAPTER VI.

A VISIT TO THE CATACOMBS.

THE next night they withdrew into the brilliantly lighted street, where the citizens chattered without ceasing, moving aside occasionally to allow vehicles to pass. It was a beautiful moonlight night, though a trifle cold, as they made their way through the streets, both being well wrapped in warm Italian overcoats. Soon they were outside the heat and glitter of the city.

"How far is it from here," asked Sir Thomas Browne.

"Some miles," replied Maril. "Let us warm ourselves by a good walk."

Their footsteps sounded loud and crisp on the rough stone paving of the road. On one side were the towering walls of old Rome—those high historic walls. They stopped for a few minutes to admire the white buildings and palaces and the Pantheon, battered old as Augustus, overtaken and clutched by modern Rome. On the other side of the road were villas, their gardens gay with flowers. A peasant or two going home from the wine-shop and a few primitive bullock-waggons of country produce coming up to Rome were the only things which they met.

Two or three miles further on the walls gave way to a stone rampart.

They next came to a long and narrow lane, dark with cypresses, at the end of which was an old ruined farmhouse. Near by a bridge spanned a little stream. Here they paused for a few moments. Nothing that the great scientist saw in Rome gave him more joy than he experienced when this silent beauty was first flashed before him. All around the Italian world lay outstretched before him, with the sea shimmering

beyond and the light of a distant ship making for the harbour.

O this Italy !

There are no words to express here intimacies.

"What time is it?" he asked.

"Il est pres de dix heures et demi," replied Maril, looking at his watch. On they went again, climbing a hill and pausing again at the top. After giving a furtive glance round him, Maril made his way through a gap in the hedge on the left, and Sir Thomas Browne followed.

They now stood in a large field recently ploughed, in the centre of which was an old church in ruins, standing in a strip of green land and surrounded by a series of hillocks. The tower of the church was still standing, but the body was in a state of dilapidation, only one or two walls remaining and almost hidden by thick masses of ivy, and to which Maril made his way. The moonlight lay in great still sheets of splendour in the old church, and the shadows were cut sharply out in it like blocks of black marble. The polished leaves of the ivy twinkled in its beams and rustled as the wind sifted through them. Above, the sky was soft and tender, great, near, palpitant stars flashed out their changeful splendour of emerald, topaz and ruby. The Milky Way streamed like a torn veil over the heavens. The villa fronts in the distance whitened by the moonlight. They could hear the civetta hoot from the old tombs, the barbigians answering from the crumbling ruins, and the plaintive monotonous ciou owls calling to each other across the vales. Everywhere were deep brown banks of poyzolana earth which makes the strong Roman cement. The place was haunted by ghosts that outnumbered by myriads the living, and the air was filled with a tender sentiment and sadness which made the beauty of the world about them still more touching.

"Surely your catacomb is not inside a church!" cried Sir Thomas Browne.

"The *entrée* to it is," said Maril.

From a hidden recess in one of the walls Maril produced a lantern, which he lighted, and on going to one end of the edifice, shaded its light in all directions save one by draping his overcoat round it.

"It might excite some remark if anyone saw a light in this lonely place," he said. "Just help me remove these stones."

There were several blocks of granite, which the two savants raised and put on one side. When this was removed Sir Thomas Browne saw a large smooth and polished stone, on which were written these words in old Roman letters:—

"Damnatus sit ille ad saccula saeculorum qui nunc viri illustrissimi sepulcrum profanet."

"Damnatus sit ille ad saccula saeculorum qui gemmas ex hoc sepulcro furtetur."

"Cursed is he to all time who shall desecrate this tomb of the great and illustrious dead."

"Cursed is he to all time who shall steal gems from this tomb."

They struck upon it—there was no answer. It seemed as if no pilgrim for eighteen hundred years had visited this spot. It was difficult to realise that behind this huge stone was the greatest catacomb in Italy. They raised the stone and leaned it against the wall. Below there was a flight of steps which led away down into the bowels of the earth.

"Be careful," cried Maril, as Sir Thomas Browne in his eagerness hurried down them. "If you were once to lose your way there the chances would be a hundred to one against your ever coming out again. Wait until I bring the light. I have gradually got used to finding my way about, but even now, if I go far, I use a ball of string which I unwind as I proceed. It is a perfect honeycomb below."

They descended some twenty feet from the level of the byre and they now stood in a square chamber cut out of the soft tufa. The lantern cast a bright light

below and dim above, over the cracked brown walls. In every direction were the black openings and passages which radiated from their common centre. As he followed, Sir Thomas Browne felt that he was about to meet the great æsthetic adventure of his life. Maril led the way down one of the corridors, and Sir Thomas Browne followed closely at his heels. Every now and then the passage bifurcated, but Maril was evidently following some secret marks of his own, for he neither stopped nor hesitated. The passage was perforated on every side with holes—doorways innumerable leading into spacious tombs—sepulchral niches of various forms and sizes. Christians of old Rome.

"How far have we been said Sir Thomas Browne.

"Nearly half a mile," was the answer. "There is really no limit to the tombs, at least I have never been able to find it. This is a very difficult place, so I will use our ball of string."

He fastened one end of it to a projecting stone, and he carried the coil in the breast of his coat, paying it out as he advanced. Sir Thomas Browne saw that it was quite necessary, for the passages had become more complex and torturous than ever with a perfect network of intersecting corridors. They had now become so narrow that it was impossible for the two savants to walk abreast, economy of space being clearly a matter of importance with the early excavators. Precious metal of every kind they saw there. They could fill carts with gleaming wave-polished marble. They could pick up Verde Antico, Giallo Antico, gorgeous Oriental alabaster, Porphyry, Pavonazzette, Serpentino and blue Smalt, the Peperino stone and the imperishable Pozzolano and delicate Roman reticulated work. They passed on and found a far more valuable prize accompanied a body under the head of an early pope, lay a papyrus roll which still preserved a large part of the second book of the Illiad beautifully written and with marginal notes. A great quantity of papyrus letters of Roman age were also found scattered about in

the catacomb. In a large jar buried in the ground lay a bundle of title deeds.

They recorded the sale of some monastic property, and were most carefully rolled, bound up with splints of reed to prevent them being bent, and wrapped in several old cloths.

In one corner there was a beautiful marble term of Italian work, and the fragments of a very curious zodiac painted on a sheet of pure glass over a foot square, each sign or month bearing an emblematic sign to represent it; unhappily it was broken in a hundred pieces. As the catacomb represent a fashion of burial previously followed by Egyptians and Jews, so the tombs of the Roman Christians presented several pagan features. Ornaments, memorials and domestic utensils were not unfrequently found beside the dead body. In a large vault they found several mummy cases encrusted with gold, and huge alabaster vases of exquisite form. A little further on they found a bier of bronze formed of narrow cross bars with an elevated place for the head. The corpse which had lain in it had long since fallen to dust. By its side stood a pleasure carriage with six spoked-wheels richly painted and encrusted with gold. On the other side of the bier lay some twenty or thirty little earthenware figures, probably the laires of the deceased. At the head and foot of the bier stood a small altar or tripod. At the foot lay also a bundle of darts and a shield, and several more darts rested against the wall. All were of bronze and beautifully embossed, but apparently for ornament alone. They had now used the ball of string and found themselves at the entrance of a small doorway, which proved to be a chapel. Dust was everywhere; they could write their names in the dust upon the floor. The walls were covered with stupendous frescoes, some faded and peeled, and some obliterated but still fresh and distinguishable. On one side the frescoes of the catacomb were devoted to Scriptural themes. They saw the primitive Christian artist's pictorial idea of how

the last supper was first instituted. The rich man which was clothed in purple and fine linen and a certain beggar named Lazarus. Paul's shipwreck and Christ's agony in the garden.

Next came scenes of martyrdom in chronological order, the tortures of the Inquisition and the horrors of the amphitheatre. Death thrust with unsparing hand upon Christians. Death, ugly death, with all its terrible show of blood and pallor, its screams and groans of human anguish. Next came a fresco of the Madonna and child with a bronze recumbent figure of a bishop or cardinal near; while on the other wall were several frescoes drawn from Roman history. One represented Horatius Cocles, the hero of the bridge. In the distance could be observed columns of dust rising in the air like clouds and advancing rapidly towards the bridge—the dust of the soil raised by the enemy. The mirky cloud draws nearer to the awe-struck watchers. Onward comes the long array of glancing helmets and spears, the banners of the allied forces waving proudly in their midst and conspicuous among them the standard of the king himself, Lars.

Parsenna of Chusium, riding in his splendid ivory car, at the mere sight of which many a town had opened its gates and admitted the invaders without parley or attempt at resistance. The bridge that had been of so much use that the pontifices had so carefully built and preserved must be cut away or all will be lost. At this critical juncture the brave Horatius is seen with one on either hand standing motionless and boldly confronting the enemy with a look on his face expressing disdainful composure, while the Plebian, joined with members of the Senate, are hewing down the bridge.

"Do you notice anything remarkable about that picture?" said Jules Maril, holding his lamp nearer to it.

"Nothing beyond that it is well drawn and in a splendid state of preservation," answered the scientist. I cannot understand why it looks fresher

than the others and why the artist has left that space by the side of it."

"You would scarcely believe me if I told you that behind that picture is a room which I consider would be the best place in the world for your sleep."

"You are surely joking, Maril."

"Never felt more serious in my life. But I will demonstrate the fact and prove to you that what I say is true. Just hold the light a moment."

So saying he moved his hand carefully along the bottom of the picture till he reached a small dark object which he touched.

CHAPTER VII.

THE MAGIC PICTURE.

As if by a wave of a magic wand the picture moved silently and gradually aside, and revealed an aperture just large enough for a man to crawl through.

"What an ingenious arrangement," exclaimed the scientist, tinctured with enthusiasm. "However did you find it, Maril?"

"I found it inadvertently," he answered. "One day, while I was inspecting this picture, it struck me that it was painted on a different substance, and on touching it I was amazed to hear a creak and to see the picture move slightly to one side. It at once occurred to me that it must be painted on a sliding block of stone. On further examination I found this secret spring beneath. At first it would not move many inches, the spring being rusty, and it had got stuck from not being used, but I oiled the slides, and with renewed attempts it yielded and verified my surmise."

Jules Maril made his way through the small opening and beckoned to the scientist to follow. To Sir Thomas Browne's great astonishment he found himself in a room measuring about fourteen feet by sixteen. He was still more surprised to find it was scrupulously clean and furnished with a few articles of furniture, a table in the middle of the room with two chairs near. From the ceiling hung a swinging lamp, which Jules Maril lighted, and going back to the entrance pulled the sliding block back into its place. The great scientist almost fancied himself in Jules Maril's room in Rome. "What does it mean?" he asked, glancing apprehensively around him.

Jules Maril smiled complacently and gave a half-triumphant, half-mysterious nod. "This cata-

comb is so extensive that it would take months to fully explore it, and a great deal of time would be wasted getting to the place from which I had left off the previous day. When I found this room it struck me that it would be a very good idea to furnish it and to lay in a small store of provisions and thus save the time going and returning from Rome. Well, once I spent a whole week in this catacomb without going to the entrance."

"But how did you get those things in here?" asked Sir Thomas Browne, looking dubiously at the furniture and then at the narrow aperture covered by the panel.

"I made a larger opening," said Jules Maril, "to get the things inside, and then repaired the entrance afterwards."

Round the walls Jules Maril had fitted up several shelves which were full of miscellaneous objects which he had found in the catacomb—cameos, rings, bronze statuettes, amphoræ, lamps marked with Christian symbols, coins and medals. On another shelf Sir Thomas Browne noticed a row of glass phials containing a liquid of reddish tint. "You were wondering what those bottles contain," said Jules Maril, following the scientist's glance. "Some bodies I found with a nail or a hatchet fixed firmly in the skull, and others with instruments of torture lying in the grave, while in others I found those phials which on chemical analysis proved conclusively that the fluid was wine, while many of them have traces of dried blood."

"I cannot conceive a better place for my long sleep," said the scientist, rubbing his hands together. "It surpasses my idea of a place for my long sleep. Supposing this catacomb was discovered, though that possibility is remote, it would be some time before this place was detected; perhaps not at all. I do not know how to thank you sufficiently, my dear Maril. It seems a pity to rob you of the distinction this discovery would create for you, especially among the archæologists."

"Do not mention it, Sir Thomas, I am pleased to think that I have been of some use to you."

"You cannot imagine the trouble I have experienced trying to discover a place for my long sleep," said the scientist, and then he narrated his adventures in the Grotto of Han and Rocheford, his explorations in the Gouffre de Padirac, and his discoveries in the Grotte d'Adelsberg. He also told him how he decided not to sleep there, as he believed that in a few years' time every nook would be discovered, and of how he was almost on the verge of despair when his friend's letter came. Jules Maril listened with great interest, and when Sir Thomas Browne concluded he said: "My letter came in good time. Have you decided when to sleep in the catacomb?"

"As soon as I have made all arrangements in England."

"Have you acquainted Lady Browne of your discovery?"

"Yes, but I shall not tell her of the catacomb; that must remain a secret. I shall suddenly disappear from the world after making all final arrangements. I shall leave a letter explaining everything."

"It is quite time we were leaving," Jules Maril exclaimed with an irrepressible start, looking at his watch. "It is four o'clock in the morning. If I had more time I would show you all the bodies which are buried in the niches in the wall, the early popes and bishops of the Church, with their mitres, their croziers and full canonicals. I will, however, take you back to the entrance by a different way and en route will show you a large crypt, rich in treasures."

"But do you know the way? We must not run the risk of losing ourselves," said the scientist.

"There is no fear of that, for I have made certain marks on the walls of the passages by which I can find my way. We will first refresh ourselves," he said, going to a cupboard on one side of the room, from which he produced some food and a bottle of chianti.

"Decay and neglect have played havoc with other catacombs," said Jules Maril, when they were both seated. The vandalism of the barbarian invader has emptied them of most of their choicest treasures and ruthlessly swept into distant museums indifferent to the importance of the environment in which they are found, there perhaps to form the subject of arbitrary classification and the basis of doubtful contentions. And the neighbouring villagers, tempted generation after generation by the presence of rich catacombs, are now by habit and inheritance the most inveterate of thieves. Now this catacomb, through being undiscovered till now, has escaped the hands of pilferers, and is consequently very rich in treasure."

"I owe you a great debt of gratitude for this catacomb," said Sir Thomas Browne. "Your laborious and minute researches would equal the Columbus of these undiscovered underworlds, Bosio, and a worthy follower of men like Padre Marchi and the brothers De Rossi. Your task must have been arduous in the extreme to force a way amid the accumulated rubbish of ages and creep by aid of a torch or a lamp in and out of the narrow clefts and intersecting passages. Enthusiasm indeed there must be, and no slight store of persevering courage and endurance. Can you explain why the early Christians took so much trouble to conceal their entrances to the catacombs?"

"Because of an edict of Valerian in 267, forbidding all Christian assemblies and all visits to the places called cemeteries," replied Jules Maril. "The Roman Christians were left politically unmolested from the death of Nero to the reign of Domitian, and again from the reign of Nerva to the accession of Decius. A leader of the Christians was discovered by the Roman officials in the act of conducting a religious service in the catacomb of Pretextatus and was immediately beheaded. From that time the Christians began to hide the entrances to the catacombs, making communications to them from the interior of a sand-pit or quarry. I

have seen a staircase in the catacombs of St. Calixtus having an abrupt termination, the stone beneath the lower step being entirely cut away to the depth of several feet. At this point the Christians used a ladder for the further descent. Avowing their disbelief in the gods of the national Pantheon, but as yet without temples or shrines of their own, refusing religious homage to the divinity claimed by the Cæsars and scorning to offer incense on the altar of Jupiter, the Christians in the estimation of their fellow citizens were both atheists and traitors. There is another way to account for the *entrée* being blocked," continued Jules Maril. "During the middle of the ninth century the catacombs, entirely neglected, fell to ruin, and their entrances became blocked up and obscured. Except for the small and insignificant entrance of S. Sebastiano and Catacumbas, their position was lost and their very existence forgotten."

"Why are the catacombs outside the walls of Rome?"

"Because the Roman law forbade burial within the city."

"That explains," he soliloquized. "We must now return."

A few minutes later Jules Maril extinguished the swinging lamp and turned up the light of his lantern, which he had placed in a corner. When they were both outside the secret chamber, he replaced the heavy swinging lamp and made his way along to another door in the chapel, and Sir Thomas Browne followed closely behind him. They went up a short passage till they came to a small open space, from which there led a complete network of passages. Sir Thomas Browne stood bewildered at the seemingly extent of their ramifications. "This is terrible," he exclaimed, "but in the dark it must be something worse."

"Shall we try it?" said Jules Maril.

"Yes, but only for a minute."

His companion stooped to the lantern, and in an instant it was as though an invisible hand was squeezed

tightly over each of Sir Thomas Browne's eyes. Never had he known such darkness as this. It seemed to press upon him and smother him. "That will do," he said, "let us have the light again."

Jules Maril lit the lantern and then paused for a moment as if uncertain which passage to take, and after examing the floor he went towards to what looked to Sir Thomas Browne to be the narrowest corridor, motioning to him to follow. They had not gone many yards before they came to some steps, down which they descended, and slowly on through the rock-hewn corridor. No work of funeral art strewed the floor and the walls. Unlike those they had seen before, they were both bare of painting and carving. At the end of this corridor there was a second staircase flanked by shelves, on which were several graceful alabaster vases, a whole multitude of sealed jars and a papyrus. The richness, beauty and abundance of these articles were amazing, and almost all of pure gold, a necklace of very long joint, a pair of massive bracelets of exquisite filagree work, and a large breast-plate beautifully embossed, such as were worn by Egyptian priests, and covered with small figures of grotesque gods. When they reached the bottom of the steps Sir Thomas Browne noticed that the galleries, instead of being cut directly out of the turfe-rock, were wider and tastefully built up with decorative masonry of brick and terra-cotta. Instead of narrow passages with "loculi" or shelf-like graves, on either side were spacious corridors and deep recesses adapted for such large stone sarcophagi as only the wealthy could afford. At the end of the corridor they found a wall plastered with mud and sealed with a priestly ocal. The top was so broken that they could look into a tomb what from centuries on centuries no eye had seen, a confusion of dark forms shimmering mysteriously here and here with a tomb of gold or silver.

"I have never fully explored it," said Jules Maril, "but we can do so now if you like."

"By all means," said Sir Thomas Browne eagerly. Soon they were inside what seemed an exquisite underworld of columned chambers, while the lamp threw wavering gleams and swaying shadows, revealing quite a medley of tomb furniture. The tomb was spacious—from twelve to twenty feet—in an oblong form, and divided into three parts by Doric columns. On one side of the wall a row of boxes like little closed sentry boxes, each containing a statuette, while near lay silvered-case niches like the berths of an ocean liner, and hermetically sealed up. In one the slab had fallen out of its place. They stepped over to examine it and found a corpse, but it had long since returned to dust, with a number of gold ornaments, whose position showed that when placed in the tomb they were upon a human body. Against the inner wall lay three vessels of silver in figures with relief, and fragments of gold fringes and laminae. "It is curious to observe," said Jules Maril, "that some slabs have been used twice over, and I have found the inscription of the inner side of a pagan, and on the other side of a Christian character. Some bodies I found enclosed in a layer of plaster or cement, with a faint odour of aromatic oils and balsams. Up to the third century B.C. the Romans buried their dead. Cremation then became the custom and lasted till the second century A.D., when burial once more became the fashion. During the cremation period sacred enclosures called *ustrina* were specially prepared for the operation. I have seen a good specimen on the Appian Way a little beyond the fifth milestone from the Porta S. Sebastiano. When burnt, the ashes were placed in an urn in a tomb or in a *columnbarium*, so-called from the pigeon-holes cut in the walls for the reception of the remains of a large number of persons."

"You seem to have an unlimited knowledge of catacombs, my dear Maril."

"Yes," replied the Frenchman flushing with pleasure,

"I am greatly interested in archæology ; I have given the subject my whole attention."

"There is another thing I cannot understand about this catacomb," said Sir Thomas Browne ; "how is it ventilated ?"

"By small irregular openings in the roof."

He pointed as he spoke to a small hole at the bottom of the gallery, through which a shaft of cold blue light struck down from the dawning day. With the light of the lantern they studied the hieroglyphics on the walls. The most important of all found in the crypt was a chariot, the curving front and wheel-rims showing golden and scarlet when the light played upon them. They lingered for a few minutes to inspect it and then passed on. The invocations and prayers of pious pilgrims scratched upon the walls and several frescoes. In Orpheus taming the wild animals by the witchery of his lyre, Ulysses and the Sirens, Moses and the stricken rock. The fading outlines of the figure of Christ calling up Lazarus and the Oranti with their hands stretched upward in prayer, and the picture of the Good Shepherd adapted originally from the familiar type of the Hermes Criophoros or Mercus with the ram. The trellised vine and many a bright scene from the vintage recalled the parable of the "True Vine," and its branches would scarcely fail to render easily intelligible the rudiments of the Christian faith.

"Just step this way, and I will show you what is perhaps one of the most terrible of Christian martyrdom."

"He led the way to a small hole in the wall.

"Look in there," he said, putting the lamp close to the hole. Through this small aperture Sir Thomas Browne saw a huge vault full of skeletons of an entire congregation of men, women and children.

"How do you account for that ?" he said, drawing his head back with a look of horror.

"My opinion is that a large number of them were seen entering this catacomb by the watchful Pagan

officials, and while they were holding their meeting in that vault the *entrée* and exit were immediately blocked up with stone and sand, making all escape impossible."

After traversing several galleries and ascending the stone steps which led to the entrance, they once more stood in the mouldering walls of the old church. Clearly delineated against the sky were the ruined monuments that line the Appian Way. Sir Thomas Browne gazed in imagination on two sharply contrasted pictures. All around him were the tombs of illustrious Roman dead to whom death was the appointed end of life, and who met it when it came with tranquility and dignity. Beneath his feet lay the Christian dead to whom death had been the portal of that new life where sorrow and sighing are no more.

"I must confess I am glad to get out of these winding passages," he said. "What a length they would reach if they were placed in one straight line!"

"Yes," said Jules Maril, buttoning up his coat. "It has been calculated that all the galleries and passages of the discovered Roman catacombs would more than traverse the whole length of the Italian Peninsula, and the graves inclosed in their walls would amount at least to two million. Such a work must obviously have involved the removal and displacement of many thousands of tons of soil.

"Just help me to replace these stones," said Jules Maril, "and then we will return." Shortly afterwards they were once more within the walls of old Rome, just as the city was beginning to stir.

CHAPTER VIII.

THE GREAT SLEEP.

SOME few months had passed since Sir Thomas Browne had been to the catacomb with the French doctor, and during that time he had been to England. He now sat again in Jules Maril's room, but this time alone, for Jules Maril was away in Germany. It had been arranged between them that he should go away some little time beforehand, and that Sir Thomas Browne should go to the catacomb himself, so that when he disappeared nobody would be likely to question Jules Maril as to what had become of the scientist. Besides Sir Thomas Browne had been to the catacomb several times since his last visit and had learnt to find his way to the secret chamber. The day before he had taken his machine there, part by part, and constructed it, and placed everything in readiness. That evening he was going to the catacomb to don the acoustic hood and sleep for ten centuries. He wondered if his disappearance would cause a sensation and whether they would search for him. He smiled as he reflected on the seeming impossibility of the task. As soon as dusk overspread the Italian world and the lights of the city began to shine he disguised himself and left the house, locking the door carefully behind him. The snow was falling gently in the street and covering the old Pantheon like a tablecloth. He pulled his warm fur overcoat closely round him and after a few minutes' quick walking was soon outside the walls of the city. Often he paused and gave a quick glance round him to see if he was being followed. Then having satisfied himself on this point he would walk quickly on again. The moon was trying to shine through dark clouds, which followed one another across the sky.

Something stirred in the thick underwood on one side of him. He stopped abruptly and looked in the direction from which the sound came, trembling with fear. It was only a small animal which hurried away.

"Bah! How nervous I am to-night," Sir Thomas muttered to himself. "I am worse than a fugitive escaping from justice."

More than once he thought of returning and giving up the idea of a thousand years' sleep. He had secret misgivings whether after all his invention might not prove a failure. But the old thoughts of the future came back to him more vividly than before, and he strode forward with quickened footsteps.

"What folly it would be to throw away years of labour for a moment's cowardice," he argued to himself. And as for trying to steal away from his wife, it was not honourable, he admitted, but it was the only way clear to him.

With these reflections passing through his mind, he reached the end of the lane and saw the ruins of the old church against the sky. He decided not to pass the farmhouse at the bottom of the hill that led to the church. He might be observed by someone through the broken windows. So he branched off into an opposite direction and made a semi-circle round. He could have saved himself this trouble had he known the house was empty, for the old farmer was in Rome.

At length he stood outside the walls of the church and looked around, as he had done on his first visit to the catacomb. The moon was now shining very brightly, revealing the Italian world for miles distant. He gazed on it for the last time in 1905. What a change must come over the land in ten centuries. Probably where he stood flying machines would be flashing through the air in all directions. Of course the old church would disappear. Its ruins would perhaps completely block up any signs of an entrance to the catacomb. He roused himself from the reverie

into which he had fallen and went inside the church.

From his pocket he took a small lamp, which he lighted.

He was not long in removing the loose stones that partly covered the entrance.

The difficulty of stopping up the entrance after he was inside had been solved. He touched a button and a huge block of stone slid along and completely closed the entrance. Sir Thomas felt that he had now entirely buried himself from the world.

Soon he stood inside the secret chamber before the picture. He pressed a spring and it moved aside. Nothing was visible beyond the little globule of radium which gleamed mysteriously in the darkness. He crawled through the narrow opening and shortly stood inside the room between the various parts of the machine. With more than usual care he closed the entrance, the huge stone coming into place with a mournful creak. He lighted the lamp that was suspended from the ceiling and next prepared the bed on the floor. Then from his pocket he produced the manuscript containing instructions how to treat his body in case of its discovery. Next he placed the machine in readiness. He inspected it with great care and with a fitful, elusive wonder at its vital fluorescence. Having now placed the hood on his head he laid down and touched a switch by his side which was attached to the machine. The room grew indistinct and disappeared; there was a sound like the roar and thunder of millions of trains or the rush of ruining worlds, through which there penetrated faint, but clear and sweet, a delicious music. Then the scientist lost consciousness.

PART II.

CHAPTER I.

“ THE GREAT AWAKENING.”

It would be difficult to conceive the sensations of the great scientist on gaining consciousness after sleeping for one thousand years. Slowly, very slowly, he came back to life. The first thing he did was to yawn, which had the effect of filling his mouth with dust and nearly choking him. When he had coughed up half the dust and swallowed the other half, the next thing he did was to open his eyes, or rather try to, but he found that his eyelids were stuck down. He attempted to rise, but he found he could not move an inch, his limbs were stiff and lifeless. What was the matter with him? What did it mean? Why did he feel so dried up and withered? Then slowly, very slowly, it dawned on him that he had been to sleep for ten centuries; so slowly, indeed, that it seemed hours. He heard faint voices which seemed far off at first, and gradually sounded nearer. It was as if someone was speaking, while now and again he could hear faint murmurs of applause. “We have discovered in this age,” said a voice near him, “the elixir of life in the form of a liquid, but here is a man who lived a thousand years ago and who invented a machine by which to prolong his life. You all know from history that in the year 1905 the greatest scientist of that day, Sir Thomas Browne, suddenly disappeared from the world. From various reports it was believed that he had hid on purpose to try a new scientific experiment on himself which he had discovered, the elixir of life. It was supposed that he was some-

where in Italy, but no one could find him. About three hundred years afterwards a skull was found in the baths of Cleopatra at Alexandria, and believed to be that of Sir Thomas Browne. It was supposed that his discovery had been a failure. After two more centuries had passed Signor Guglielmo Jacchini, while exploring a new catacomb near Rome, came across this mummy, which was proved to be Sir Thomas Browne by a letter which he found by his side written on vellum, which I will presently read out to you. It has been most carefully preserved with the mummy and has been handed down from one generation to another as a heirloom and finally handed over to me. As you all know, science has made great advancement since the mummy last saw the world." Sir Thomas felt a light touch on his chest at this juncture, but he thought it would be better to lie still a little longer.

The speaker went on: "We who live in an age of calm reflection and freedom from every form of physical exertion are apt to forget that a thousand years ago men lived in a turmoil of strife and competition. The thoughts which we now transmit by telepathy were then conveyed by discordant speech. The journeys which we accomplish in a few hours of aerial flight then entailed days or weeks of travel by railway or steamboat—two very crude inventions, pictures and models of which you have seen in the museum. Above all, the distribution of the world's products, now effected with ease and justice by means of a highly developed system, was then the work of private enterprise, no less fatiguing and brutalising in its conduct than unfair in its results. We in this age recline at our ease and pass our days in contemplation. In a few minutes we accomplish by well-directed brain power and the medium of electrical energy and mechanical appliances our share of work, which only a thousand years ago would have cost us days of toil and anxiety. Our meals in tabloid form require no effort to chew or assimilate them. Our simple garment of indes-

tractible material lasts us a lifetime; nor does the atmosphere contain those germs of disease and the dust which formerly made washing necessary. Our health-giving electrical appliances have removed the necessity of exercise to preserve, or drugs to restore to health. Think on in peace of the sublime and varied philosophy of the age; yet give a thought sometimes to the ancients who toiled for food, decked themselves in clothes of foolish gaudy colours, rushed hither and thither in pursuit of that old chimera money, and were also swayed by the many passions, such as love, hatred, ambition, and selfishness, which are now but the themes of moral philosophy.

"You may be sure that the mummy will behold the great change that has come over the world with no small wonder. I will now read to you the contents of the manuscript which was found near him, and which, as I said before, has been most carefully preserved. To read it as it was written would be useless. You would not be able to understand it. I will give you the translation of it." The translated manuscript was here read.

"After reading it," continued the speaker, "I found from several experiments that the mummy had been sleeping for nine hundred and ninety years and eight months, and in five minutes' time he will awaken." Sir Thomas heard a loud murmur of applause when the voice near him ceased speaking. He again tried to open his eyes, and was this time successful.

He found himself lying on a high table which stood on a raised platform in the centre of a large hall with a glass roof. All around the building were tiers of seats occupied by what looked to him to be scientists and students dressed in blue coats with white buttons, and wearing white neckties with red borders. But how strange they looked. One thing that struck him particularly was their large heads and small feet. Round the table stood three learned looking gentlemen with bald heads, and who, he presumed, were professors.

"Behold the mummy awakes," said the one who had been speaking, giving Sir Thomas Browne a sharp prick with a small instrument he held in his hand.

Another of them immediately applied a powerful electric battery, while the other sprinkled a little water over him, which soon restored him to a state of reviviscence, and he was able to sit up. How hungry he felt. Never had he felt such a desire for food before.

"For heaven's sake get me something to eat," he said hoarsely, "I am dying of hunger."

With a wave of his hand the most important scientist commanded the students to leave the hall, and after fumbling in his pockets he produced a small tabloid, which he handed to Sir Thomas.

"I have not told you yet who we are," he said. "I am Hetairai, the Professor of Physics. Permit me to introduce you to my worthy friend, Faure-Fremiet, whose knowledge of history is unlimited."

The speaker was a middle-aged man, almost bald, with a pleasant countenance and wearing a short black beard. His companion was short and very old, with a long snow-like beard which added materially to his venerable appearance. His face, in spite of his great age, was still handsome and full of intellectual beauty.

Sir Thomas bowed understandingly, and then swallowed the tablet at one gulp. The scientists gazed at one another in astonishment with a look of horror on their faces.

"Are you aware," said the Professor of Physics, "that you have eaten a good substantial meal in less than a minute? Why, man, it is quite enough to kill you. You should have masticated it thoroughly before swallowing it."

"What a boon these tablets would have been to people years ago," said the Historian. "Armies could have taken the field without a thought for that base of supplies which was a bugbear to commanders. Travellers would have been independent of railway-

station buffets, and explorers could have penetrated into the trackless desert with a light heart."

Sir Thomas nodded his head, which gave him a sudden twinge of pain, for his neck was still stiff.

"When they were first invented," continued the Historian, "it was found by practical experiments that the continuous use of these tabloids acted most injuriously on the human constitution. But they have been improved, and now you can carry a good square meal in your waistcoat pocket with no diminution of nourishing power."

"Bring me a chop," cried Sir Thomas impatiently.

"A chop," reiterated the Professor of Physics, looking mystified. "What is that?" he asked, turning to the Historian.

"I do not know," he answered, leaving the room, "but I will look up my history and see."

"In a few minutes he returned, carrying a large book which reminded Sir Thomas of the Doomsday-book, and which he noticed bore the title "Teota: The Encyclopædia of the Ancients." The Historian placed it on the table and immediately began to turn over the leaves. "C-H," he said aloud, running his finger down a page.

"Here it is," he said, pausing near the bottom. An old English word meaning to cut off with a sharp instrument by a quick blow. To do anything with a quick motion like that of a blow."

"That will not do," cried the Professor of Physics, "try the next."

"C-H-O-P," read the Historian aloud, "to exchange, to shift suddenly as the wind."

The Professor of Physics shook his head. "Try again," he said.

"Chop, an abbreviation for chopper. Chopper, a large kind of a knife used by barbarians."

"He will not get it," said the Professor of Physics, "he may do some harm to himself or to us. Is that all the book says about chop?"

"Ah, I have it!" cried the Historian triumphantly, and reading it aloud. "C-H-O-P, an old Chinese word referring to the quality and quantity of tea. He wants some tea," he said, shutting the book in a decisive manner.

"No I don't," interrupted Sir Thomas, "I want a chop."

"Can you tell us what it is," asked the Historian.

"Yes, a slice of meat with the bone."

"Never heard of it," said the Historian. "But if you are still hungry you are welcome to have my luncheon," he said, producing a tablet similar to the one the Professor of Physics had given to him. He ate it slowly and found that it appeased his hunger little better than the first one. "Oh, for a good twentieth century dinner!" he sighed.

Just then the wireless telephone tinkled in the Professor of Physics's waistcoat pocket. He put the receiver to his ear. "Hello—is that you—what? Oh, very well. Send it at once, will you?"

What it was Sir Thomas had no idea, but in a few minutes something dropped from the top of the hall. The Professor of Physics passed his hand over the minute parcel and it flew upwards from the floor into his hands. Before Sir Thomas could exosulate, or indeed had any idea of what was next going to happen, he was clad in a gorgeous suit of clothes, which the professor pronounced indestructible. He then led the way to a room on the left after motioning to Sir Thomas and the Historian to follow. The door which had opened automatically on their approach, closed in the same manner when they were inside. The room looked bare, not an article of furniture to be seen anywhere. The Professor of Physics placed his foot on a small polished square in the floor and immediately there came up from some invisible chamber below strange looking chairs and tables. They were soon seated. "Who is King of England now?" inquired Sir Thomas, after recovering in a measure from his surprise.

"There is no King," answered the Historian with a smile. "England and America have amalgamated several centuries ago and formed a syndicate known as the Anglo-American Liability Company Limited."

"Which is the most important nation?"

"Japan is now the greatest power," replied the Historian, "since she combined with China and compelled Russia to evacuate Manchuria about ten centuries ago. China, the most distant nation of all, has fallen into line years ago and lives like the rest of the world."

"What is the state of Russia to-day? Has it improved much since 1905?"

"Yes," replied the Historian, "but not till much blood had been shed. The French Revolution was a mere street riot compared with the great upheaval which took place in Russia some nine hundred years ago. The peasants revolted, killed the Czar and murdered nearly every member of the bureaucratic executive and crushed the tyrannical and despotical rule to which they had been subjected since Varangian Rurik's son consolidated his authority over Kieff as early as the ninth century."

"What war is there on at the present day?"

"Wars are things of the past," returned the Historian. "Man has now reached that state of civilization when he no longer tries to take life but to preserve it. He has entirely lost that savage nature possessed by the ancients. Methods of conducting human affairs have been brought into such good shape that everything goes as if by machinery. Successive Defenders of the Peace of the World have built up a code of international law so complete that every question at issue between nations is settled by its principles."

They wondered when Sir Thomas spoke of that time far back in the mists of antiquity when men fought and killed each other in war.

"The last battle in the world's history was fought

without men. It was a mere contest of machines," continued the Historian.

"How was this possible?" inquired Sir Thomas, looking hard at the Professor.

"By electricity without wires. But we shall have to appeal to Faure-Fremiet to give us full particulars of the war—its cause and how it was fought."

The Historian cleared his throat and commenced. "In the year two thousand Germany and England declared war."

"What was the reason, the pretext?" asked Sir Thomas Browne.

"To begin with, the dream of world-wide hegemony cherished by the Emperor and proclaimed in the propagandist publications of the Pan-Germanic League. The annexation of Austria, German expansion in Asia Minor, the ruin of the English sea-power and the political and economic domination of Europe permitting the flooding of the world by German products. At this moment, too, the German people were suffering from one of their periodical attacks of Anglophobia. It is difficult to say exactly why England had made herself objectionable in their eyes, unless by successful negotiations which had ended in extensive annexations in the Far East. Though the Government had given no formal objection, the citizens of the German Empire felt that they had been bested, and now-a-days with their large and formidable sea-fleet, which had been fostered and increased during recent years, a warlike tone prevailed which made them long for an opportunity of showing off their power. To bring matters to a climax an English ship was cut in two in the Pas de Calais by a German mail steamer and Germany refused to give any explanation or indemnity. The struggle was specially interesting because it was the first time in the annals of history that a war had been fought without the loss of one single life, and because it was the first time that aerial cruisers played an important part

as an auxiliary force in fighting. Until the moment their success was manifested to the world they were condemned; afterwards they were accepted with nonchalance, as being but perfectly natural. Both countries then possessed them. They varied from 100 to 200 yards in length, driven in the air by thirty or forty propellers, each worked by a 100 horse power petroleum motor. This gave a total of 3,000 horse power, sufficient to impart to the airships a maintained speed of at least 100 miles an hour. To resist pressure the envelope of the ballons were composed of thirty-four thicknesses of Lyon's silk regularly laid one over another and varnished. These aerial crusiers carried sufficient fuel for 1,000 miles at full speed, or from 3,000 to 4,000 miles at reduced speed with a crew of thirty men and a supply of explosives to be fired at the enemy by means of torpedo tubes worked with compressed air. Both nations were confident of victory, and the movements of the two fleets sent back by wireless telephony were watched with the greatest interest. This war lasted for four years, and in the end neither had won."

CHAPTER II.

CONCENTRATED SUNSHINE.

"I NEED scarcely ask if the coal supply of England is exhausted," said Sir Thomas. "Has a substitute been found or invented?"

"Yes," replied the Professor of Physics. "something has been invented in the form of sun-blocks."

"Sun-blocks?" repeated Sir Thomas in an inquiring tone. "What is this new fuel like?"

"I will fetch one and show you," said the Professor of Physics, leaving the room. In a short time he returned carrying a small box about four inches square and handed it to Sir Thomas for his inspection.

It was cubically shaped, made of some very hard substance, and stamped on two sides with the manufacturer's name.

"I presume you use this in much the same way as coal, but perhaps it lasts a little longer," said Sir Thomas.

"Let me explain," said the Professor of Physics. "The blocks are made in various sizes from an eighth of an inch to twenty-four inches by the Sun Block Manufacturing Company, Great Sahara Desert, and the Concentrated Heat Company in the desert of Arabia."

"But why in the Sahara and Arabian deserts?" interposed Sir Thomas.

"Because they are the two sunniest places on the earth. You see these blocks are made by wonderful machinery which concentrates the heat of the sun into a small space. The temperature varies thermometrically according to the size of the blocks. You obtain the heat by simply removing the small lid on the top."

"But the block does not feel hot," said Sir Thomas Browne.

"No, because it is encased in a substance which resists heat, the make of which is known only to the inventors, who guard the secret with jealous care."

"Wonderful!" exclaimed Sir Thomas. "Wonderful!"

"The value of these blocks is inestimable," said the Professor of Physics. "Had the ancients a thousand years ago a hundred of them in one of their old-fashioned cruisers of fourteen-thousand tons, in place of coal, it would have been an adequate supply to send the vessel to China and back steaming at twenty knots an hour. Besides the blocks are clean, inexpensive, and are not mephitic," added the Historian.

"That is not all," said the Professor of Physics. "We have in the age completely solved a great problem which had long engaged the wits of practical philosophers."

"To what are you referring?" Sir Thomas questioned.

"The complete utilization of solar heat," he answered succinctly.

"You are speaking of the sun blocks?"

"No. That is but one small way in which the sun's heat is retained and used for future use. I am now thinking of an apparatus that has long been invented to harness the rays of the sun that that body operates nearly all the machinery in the world to-day, as well as furnish all the light that man needs by day, as well as by night, and it could do all the work in the world several times over if it was required."

"You astonish me!" he said.

"Why, on the broad sunlit plains of the Arizona the sun delivers an equivalent of mechanical energy which, expressed in horse power as the ancients called it, would seem almost infinite. A small portion of this suffices for the whole world's work. Think, Sir Thomas, what could have been done with the power in your time

if the engineers had turned it to man's use," said the Historian. "Why, with the heat the sun delivers on a small portion of London you would have had four times enough energy to warm and light that city alone and supply all the manufacturies, streets, railroads and other consumers of mechanical power."

"May I ask how this apparatus collects the heat of the sun?"

"The idea is simple enough," declared the Professor of Physics. "It consists in concentrating the heat of the sun on a focal point by a series of mirrors and magnifying glasses, and the great heat so produced is directed upon a glass cylinder filled with water. This latter is chemically prepared so that it rapidly evaporates into steam. The steam is made to operate a steam engine which, in turn, generates electricity. This electricity is received by storage batteries and a vast and cheap supply is generated for all purposes. The whole industrial problem is absolutely solved for mankind by thousands of sun stations dotted about the globe. They have in short replaced coal as a producer of motive power."

"I suppose there is no coal left," said Sir Thomas.

"Oh dear, yes," replied the Professor of Physics. "The Shansi coal fields in China contained, it was estimated, in 1903 more than six thousand million tons of anthracite—enough to suffice for the wants of the world for over two thousand years, but since sun blocks were introduced the resources of that country in the way of subterranean fuel have been scarcely taxed. Before then the world depended on its supply of coal from the great coal depot, England, till it was exhausted."

"How long ago was that?" asked Sir Thomas Browne.

"Six hundred and thirty years," answered the Professor of Physics. "The price of coal began to rise some years before till it was found cheaper to import it from the United States of America. People imagined

that when British mines were worked out we could fall back on Ireland. But this was a mistake. The whole Irish coal fields contained less than enough to supply England for a whole year. Another illusive hope was to work the coal measures round our shores. That a very large quantity of this precious metal lay below the sea bed all authorities admitted, especially near the Firth of Forth. But the obstacles were great. Water tended to find its way in along cracks and fissures arising from subsidence."

CHAPTER III.

THE UNISOPHONE.

"HAS any notable discovery been made in astronomy since 1905?" inquired Sir Thomas.

"Yes," answered the Professor of Physics. "I suppose one of the most important is universal communication with Mars."

"You mean to say that it is inhabited?"

"Exactly."

"That is just what I always asserted," observed Sir Thomas, rubbing his hands together. "I always maintained that there must be some form of life there."

"Yes," responded the Professor of Physics, "and it has been proved that the inhabitants of Mars are far superior to us in intelligence. I do not hesitate to say that they are at this present day two thousand years in advance of us."

"You surprise me. What is the means of communication? How were messages first successfully interchanged with the dwellers of Mars?"

"I will explain," responded the Professor of Physics. "To begin with, it will be necessary to go back some hundreds of years ago when biologists first found that bacteria could live in lower temperatures than had ever been obtained before, and when the idea was abolished that beings must breathe air, for it was found that there were certain low forms of life which could exist better without air. Not that there is no air on Mars, for it is one of the heavenly bodies where conditions approximately adapted to the maintenance of life is such as we know it upon earth. But to get on with my story. Some years afterwards a huge telescope was devised by which astronomers could see forms of life on Mars? The question then arose: Could it be possible to attract

the attention of the people of Mars? Then it was calculated that to send a message which they could see required a square mile of concentrated light as bright as the sun. At last an apparatus was devised and signals were made nightly from the plains of Siberia during two or three oppositions of the planet without any answer being received. Then the world was electrified by seeing return signals flashing in such a way that no doubt could exist about them.

"Their interpretation required more study than was ever expended by our archæologists on a Moabite inscription. It took a great many clever men very many years to decipher the cunciform characters. But success has at last been reached, and now we are able to read all the signals without any trouble. I say we are able to read all, but I should tell you that there has been observed several very bright flashes of light the last five years from one side of Mars. What they mean is quite unintelligible to us."

When the Astronomer Royal had gone, the Professor of Physics turned to Sir Thomas and said in a low voice, "I told you just now that no one could read certain mysterious signs from Mars, but I feel firmly convinced in my own mind that they are known to Count von Linden, the Astronomer Royal, only; although I have not expressed my opinions to anyone but Faure-Fremiet."

"Then why does not Count von Linden publish the interpretations of the signals?"

"I think it is because he is not quite sure that he has read them aright."

"Then if it is possible to intercourse with another planet means of communication on this earth must be rendered quicker and simpler," observed Sir Thomas thoughtfully. "Now I should not be surprised if you told me that I could by wireless telegraphy or something of that sort correspond with a person say two or perhaps three thousand miles distant."

The Professor of Physics and the Historian both laughed outright.

"Then it would surprise you, Sir Thomas, if I told you that the first part of our conversation has been heard by several million people throughout the world."

"You are joking," gasped Sir Thomas Browne, looking hard at them both and giving a quick glance round the room.

"No I am not," said the Professor of Physics, rising from his seat. "We are going to telephone now."

"To telephone!" he exclaimed. "Are your wires underground; I have not seen any?"

"We have long dispensed with wires," he said. "I said 'telephone' because the word would most nearly convey to you what I meant. But telegraphy and telephony now are not merely wireless—that, I should have thought was in your time, it is so simple. But now the means of instant communication more nearly approach what we call telepathy, though I assure you there is nothing occult about it, but that our friends have merely learned to control the ethereal vibrations by simpler means, and those at the command of men. Kindly step this way, Sir Thomas, and let me show you first of all the unisophone, one of the most important mediums of communication by which one can speak a long distance without going near it."

He led the way to one end of the room, followed by Sir Thomas and the Historian.

"Here it is," he said, pointing to a small rectangular box about five inches wide and four inches deep.

"Quite a diminutive affair, you see," remarked the Historian, casually. Flush with its front face were two circular places about two inches in diameter. The upper one reminded Sir Thomas Browne of a small hopper to an ancient coffee-mill, for it had a receding cone reaching almost to the back of the receptacle.

"This is the receiver or talker," said the Professor of Physics, touching it with his fingers, "and this is the transmitter," he went on, pointing to a ring of small holes bored in the circumference of the circle beneath

the receiver. "The little holes all lead inward to a steel tympanum, but the sound-waves are so deflected that they all arrive simultaneously on one small point of the diaphragm, or really much amplified or intensified. 'This sensitive transmitter is a wonderful piece of mechanism,'" said the Professor of Physics. "The most ingenious of the great telephone inventors and electrical experts had worked for years to create a transmitter that could reproduce faint sounds perfectly and divorce it of all cluttering effects. Now throughout the world, in every town of any note, are several large buildings each containing a unisophone. This day people who were unable to see you awaken here, crowded to these places to hear you speak and to see you. Hundreds were unable to obtain admission."

"Did you say to see me?" reiterated Sir Thomas Browne, slowly.

"Yes," answered the Professor of Physics, smiling slightly. "Do you observe that small glass case on the top of the unisophone?" He touched a small mirror, and Sir Thomas nodded.

"Well, on every unisophone is this glass to be found, and to-day, if you were to see it in any part of the world you would observe a picture of this room and its occupants. Every movement you made has been seen by millions of people, being magnified by the glass and thrown on a sheet, and every time you spoke it was heard by this vast congregation of people."

"Marvellous!" ejaculated Sir Thomas Browne. "Marvellous!"

"Would you like to see some of your audience?" asked the Professor of Physics.

"Nothing could give me greater pleasure," said Sir Thomas Browne, "provided it does not involve any trouble on your part."

"No trouble at all. I will first of all show you the interior of the room in the observatory on the Himalaya mountains. There you will see a large number of astronomers from all parts of the globe, including the

Count von Linden, the Astronomer Royal, although he was here a short time ago. He must be there by now; that is if he went by the Automatic 'Tunnel Cube Transmitter'; but we shall see for ourselves," he said, running his eyes over a long row of names on a large key-board near the unisophone, under each of them Sir Thomas observed a small white button. The Professor of Physics pointed to one of them and pointed to the glass. Instantaneously he saw represented on it the interior of a large room. Round a red cloth-covered table sat several men, while at one end sat the Astronomer Royal, looking as though he had been sitting there for hours, "Maybe you would like to speak to him," said the Professor of Physics.

"You must have been quick to get to India in less than an hour," said Sir Thomas in a loud tone.

"Not at all," said the voice of the Astronomer in its natural volume. "I have only just arrived. Should have got here sooner, but I missed the Cube and had to wait."

"What does he mean by the 'cube'?" asked Sir Thomas, turning to the Professor of Physics.

"An abbreviation for 'The Automatic Tunnel Cube Transmitter.'"

"Passengers from England to India can arrive at their destination in fifty minutes. It is as easy to cross the sea nowadays as the ancients used to go from one part of London to another. You may have breakfast here and dinner in New Khartoum, and sup in St. Petersburg or Vienna. We have ships that can circumnavigate the world in two days. Though requiring engines capable of producing 28,000 horsepower these immense aero-hydrostatic ships, carrying 1,000 passengers and pushing aside out of danger by its air pressure all ordinary vessels, travel at the rate of 600 miles an hour. Except that they are flat-bottomed and are constructed with bows that taper off more finely to a point than other ships, these vessels are very much like an ordinary one. But while at

rest, the wonder floats in water as does the ordinary ship; when driven forward they are raised to the surface and glide along the water as a skater skims over ice. The motive power is electricity and the vessels are propelled by peculiarly constructed screws—but how they produce a lightning speed is the inventor's secret. The jaded Londoner of your day, Sir Thomas, would have been able to spend his week-ends in Australia.

"Hello! New York! We're London!" said the Professor of Physics, touching the key-board.

The glass this time depicted the interior of a crowded American theatre. Across the stage was a large screen on which Sir Thomas saw a picture of himself magnified about twenty times his life size. Immediately there arose a deafening cheer and clapping of hands.

"I have much pleasure in introducing you to Sir Thomas Browne, the great twentieth century scientist inventor of the elixir of life," rang out a voice from the other end. Another great outburst of applause followed, to which Sir Thomas acknowledged with a slight bow.

Then followed an introduction to several more American towns, including Philadelphia and Pittsburgh, and several names he did not remember ever having heard of before in the Geography of America in 1905.

"What do you think of the unisophone, Sir Thomas?" inquired Faure-Fremiet.

"I am at a loss to find words to express my sense of wonderment."

"By the unisophone it is possible to telephone round the world or to any distance without wires," continued Faure-Fremiet. "A man can stand in the middle of a room and talk at one end of the unisophone and hear his own voice coming out of the other after a trip round the world. Were the earth two hundred and fifty thousand miles in circumference it would be just as easy to talk to inhabitants on the other side of the globe.

One of the most wonderful parts of this machine is that it can take your speech and keep it unuttered if your friend happens to be out, but speaks it into his ear as soon as he returns, whether the interval be an hour, week, or any length of time."

"The unisophone is not the only thing we have that can annihilate space and enable us to see what is happening on the other side of the earth," said the Professor of Physics, resuming the conversation. "The trans-terranean telescope is almost as wonderful. By this apparatus it is possible to see what is happening on the other side of the earth. There is no need of journeying half across the earth to see what our friends and neighbours are doing. We also have a system of electric photography by means of which clear photographs of persons or scenes can be seen at least five thousand miles distant. Then again we can by wireless telegraphy send a photograph to any part of the globe. The quality of the photograph is not dependent on the distance of transmission. For it would take longer to send. For instance, a portrait could be wired from London to Melbourne, Australia, as easily as from Munich to Berlin. The portrait in Melbourne would be as clear as that in Berlin, but while it would only take ten seconds to appear on the film at Berlin, it would take 4 minutes and 30 seconds for the picture to appear in Melbourne. And last of all, but not least, I may mention the telautograph, a very old invention indeed, embodying a method of transmitting intelligence by electricity. A man writing in a distant part of the world uses a steel pencil attached mechanically to the apparatus, and writing upon ordinary paper, transmits to London in less than two seconds a facsimile of his handwriting. Sketches, diagrams, and the like, may also be transmitted in this way."

"How invaluable these inventions would have been to people in my time," Sir Thomas said, after a brief pause. "For one thing, there would have been no

need of war correspondents to endure the discomforts of a Nile campaign or the hardships of a South African war. They could sit in an office in Fleet Street and write gory descriptions in the midst of gilded luxury."

"We have another kind of unisophone but on a much smaller scale. By a system of microphones placed ingeniously throughout the various departments of a house, the owner, sitting in a room can, if he wishes, hear every word that is being said in every direction."

This gave Sir Thomas some food for reflection. He could not help thinking what a death to scandal the invention must have dealt.

"I see you have another unisophone," Sir Thomas said, pointing to a small instrument enclosed in a mahogany frame measuring about six inches by four inches, "why it has a face like a clock."

"It is a clock," said the Professor of Physics, smiling strangely, "not an unisophone. It has been going since February the 20th, 1908, and will yet go for 20,000 years. Of course, providing it is not broken. Although the problem of perpetual motion has not been solved, it is not exactly hyperbole to speak of a clock for eternity."

"You surprise me," Sir Thomas said slowly. "May I ask how it is kept in motion?"

"Yes, by one-twelfth of a grain of radium supported in an exhausted glass vessel by a rod of quartz."

CHAPTER IV.

LONDON OF 2905 A.D.

"FOLLOW me, Sir Thomas," said the Professor of Physics, "and I will show you the city of London. Not as you knew it in 1905. No doubt you will observe a great difference since then."

He led the way out on to a balcony overlooking the vast metropolis.

What a great transformation met Sir Thomas Browne's eye. Where were the familiar structures, the Houses of Parliament, the dome of St. Paul's? Departed, and in their places and on either hand rose magnificent buildings of imposing architecture.

Here on the right was the huge Hotel Thames with its tiers of balconies.

There to the left, with its gilded statuettes was the Century Theatre. Next stood a large block of buildings—the World's Emporium.

Away in the distance were the towers of the Palace of Justice.

Erected across the river at regular intervals of about two hundred yards were wide traffic bridges composed entirely of steel, and along each embankment were situated great artificial ice-storage houses belonging to the British Food Trust.

Rising prominently above the highest edifices were several large aerial stations in various points of the city, while from the fronts of houses projected stages, from which went and came monstrous airships, yellow and shining with varnish, looking like great masses of gold in the sunlight with the slender spidery frameworks of bamboo and wires and the compact little engines far below rising at the command of little dots of human beings who made the great vehicles sub-

missive to their will. Swiftly and smoothly they pass through the air with aeroplanes shooting comet-like past them. The air was literally full of aerial traffic.

"Most of our airships are branched into two groups," said the Professor of Physics. "On the one hand are the giant aeroplanes, the public conveyance for the long journeys travelling across the sea. They are, as you see, of enormous size. See, one is now passing immediately over our heads," and he pointed upwards as he spoke.

Sir Thomas could see several more as he looked around him, almost as large as the old Atlantic liners of his day—starting forward and lighting on to specially prepared platforms, running regularly between fixed stations and along certain tracks.

The smaller private boats were driven by specially trained and licensed aeronauts, and they darted in and out amongst the larger craft in a manner that was quite puzzling to behold.

Sir Thomas gazed at them in bewilderment. "Accidents must be a frequent occurrence," he said at length.

"You mean to say that you are surprised that they do not crash into each other."

"Exactly."

"This is easily explained," answered the Professor of Physics quickly. "Aeronauts at various elevations must go in certain directions. For instance, if one wishes to go to the Continent he must go at a greater height than if he went to America or the North Pole." The Professor of Physics seemed to think that to ride in an airship was not more dangerous than automobiling—indeed, he said that he would rather trust life to the Zephyrs than to the hundred risks that lie in wait for those who travel on the solid earth.

His attitude of mind on the subject was to Sir Thomas reminiscent of the sailors in the storm at sea who commiserated with the landsmen because of the danger they ran from falling chimney-pots,

"When they first became common, men did not cry out against them, for they did not hinder vehicular traffic in the streets, run down pedestrians nor pollute the air with vile odours."

"Here is an extract from the *Daily Mail* dated 1910," said the Historian, pulling a two-sheet condenser from his waistcoat pocket, perfumed and fumigated and printed on sight-preserving paper. "I will read: 'The quiet little hamlet of Pembury, Kent, was thrown into a great state of consternation yesterday morning about 10 a.m. by the air becoming suddenly filled by what appeared to be a swarm of mammoth bats.'"

"It appears that the authorities of Aldershot, who have lately bought the patent of the perfected Hiram flying apparatus, had decided to test the utility of the machines by a series of manœuvres. The result was an unprecedented success, and the War Office have given orders for a large number of the new flying machines to be constructed immediately. Of course the new invention will entirely revolutionize the present mode of warfare. It is impossible for us at present to picture the change, but no doubt we shall get just as accustomed in time to the sight of our aerial fleet as we have to receiving messages by wireless telegraphy."

"At last when the air became very thick with air ships, they were condemned as a nuisance," continued the Professor of Physics.

"Was there any complaints?"

"Oh, yes. From time to time an aerial yacht would descend accidentally or on purpose in the street, sometimes with damage to the crowd. From time to time, infrequently, one of them would crash to earth, but its fall, though unfortunate, did not necessarily have fatal results. The principal object was to increase the fundamental qualities of the airship, that is, by the duration of its sojourn in the air. Now these silken envelopes are constructed in such a way that should they by any chance explode or become

torn the material will collapse together and form a natural parachute and bring the aeronauts to earth in safety. One part of the population and the Press then rose against this increase of aerial navigation, while others defended as a thing that must come as a necessity to progress. For a long time aerial navigation over great distances proved a disastrous failure. About that time and after forty years of agitation, a great railway was built from London across Ireland and Greenland to Chicago (which city having adopted the working day of twenty-four hours, had been long foremost in America). The railway was completely electrical and the transmarine tubes were borne on aluminium floats. Another stage from Cape Wrath to the Faroes was then next constructed, but it was never completed. The long distance air-ship was now perfected just at this period of the work, and the builders saw that the transmarine tube could not compete with aerial craft in speed. So the project was abandoned."

"What a splendid building is that," Sir Thomas remarked, pointing to a skyscraper, a fine building with large gold letters across the top labelled—

"The Ethereal Electricity Supply Trust."

"Where does that wire lead to from the top of the place?" he queried.

"I will tell you. Some centuries ago a Chicago inventor stated that above the atmosphere which extends for seventeen miles was an ethereal region charged with pure electricity. He considered it scandalous that such good stuff should be wasted, so he formed a company for the purpose of shooting a huge magnet one hundred and fifty miles above the earth, where the power of gravity being lost, the magnet would simply fall into space. At the end of the magnet was to be fastened a cable, along which the electricity to the extent of 280,000 horse power was to be passed. The limitless supply of electricity thus obtained, he declared, would revolutionize the running of machinery all over the world. It was some time before success

was achieved, for many centuries ago a thirteen-inch cannon was transported to Pike's Peak, a lofty mountain in Colorado, but after many attempts had been made the idea was abandoned as a failure. When many years had passed a very large gun was devised which hit the electric bull's eye. Several companies were at once formed which sent up magnets from almost every part of the globe. There is another company that uses earth's fire. It was thought that if a hole of sufficient depth were bored in the earth an exceedingly high temperature would be reached. So a company was formed to bore a hole twenty miles deep, to put down a thick copper rod, conduct the heat up and run furnaces and boilers at the top." Nearly all the machinery is to-day run by earth-hidden fires."

"You must have great facilities to contend with the fog that used to hang over the city," Sir Thomas presently observed after another pause.

"Fog is but the visible effect of aqueous vapour; suspended in the air without the expanse of cold humid water and damp earth this could not exist. The minute particles of smoke which dampened by the vapours, form a pall which used to hang over the city are now dry and fall to the ground as dust, leaving the sunshine to warm the air and beautify the surroundings. Besides, we have a light so powerful that it could pierce, at the same time destroy, a fog several thousands of yards ahead."

"What a boon and a blessing this invention would have been to shipowners in my time," Sir Thomas remarked.

"You would be surprised if I told you that many of our large cities are lighted by microbes."

"In what way?" Sir Thomas asked interrogatively.

"By lamps lighted by means of bacteria, which give a powerful light and are free from dangers. The lamps consist of a glass jar, in which a lining of saltpetre and gelatine inoculated with bacteria is placed. Shortly

after inoculation the jar becomes illuminated with a wonderful bluish-green light caused by the innumerable bacteria which have developed in the time. The light will burn brilliantly for two or three months afterwards, gradually diminishing in brightness. It renders faces recognisable at a distance of two hundred yards."

"You must be tired now, Sir Thomas," said the Professor of Physics, turning suddenly and facing him. "I would suggest that you should rest for a week, and not go outside these buildings. Everything is so strange and new to you that you must gradually get accustomed to life in the thirtieth century." He led the way from the balcony into another room.

To Sir Thomas Browne's surprise, he then began to wave his hands in the air like a man conducting a band and keeping time with a piece of music.

Through the doorway advanced what appeared to Sir Thomas to be a man dressed very much like Faure-Fremiet and wearing silk stockings, knee breeches and scarlet coat.

The figure came and stood before the Professor of Physics, who was making now a series of upward strokes like a hypnotist making passes over a subject. Then for the first time Sir Thomas saw that it was no living form that stood there, but a mechanical automaton.

"This is what the people of your day did not possess," said the Professor of Physics, folding his arms. "What do you think of the invention?"

"Wonderful," he exclaimed, and then, as though his first emphasis did not satisfy him—"wonderful. What is the power by which the automaton is moved?"

"Have you ever heard of Seismic Waves," asked the Professor by way of an answer.

"Yes, I think so, but I almost forget. What has it to do with the automaton?"

"Everything. Now watch me."

He pulled up his coat sleeves and turned back the cuffs of his shirt so as to bare his wrists. Then

touching the automaton he began to stroke it softly with the tips of his fingers and thumb.

His hands were white and long fingered and finely moulded, his wrists square and hard. Looking at him, watching the curious smile playing on his face and the athletic pose of his body, Sir Thomas was struck by his physical resemblance to the Vatican Discobolus with the wonderful combination of repose at the completion of the backward movement of the thrower and of the action at the commencement of the powerful forward cast.

But such thoughts were dispelled by the uncanny antics of the automaton.

It was broad daylight and any sleight of hand performance was out of question in every sense. The Professor withdrew his support from the automaton, still continuing the stroking movement in the air and gradually widening the distance between his hands. But the automaton did not fall! It stood there immovable, as though it was stuck to the floor. But when he inclined the imaginary axis of his hands, thus changing the direction of the magnetic current that flowed between them, the automaton adjusted its poise to the new line of force. It leaned over at impossible angles, moving its head and every part of its body, picked up a statuette, glided from the room and restored it to its former position.

"I can't explain why we have the gift of magnetic induction," said the Professor. "Feel my hands now."

Sir Thomas caught his right hand. It was so icy cold to the touch that he started.

"I really think I could magnetise your hands," he went on. "Shall I try?"

"Yes," he answered with ready complacency.

The Professor of Physics commenced to stroke his hands from the finger tips to the wrists.

Soon he felt a sensation akin to plunging them into snow and a slight prickling.

"As a distinguished scientist you may have some idea how the automaton is controlled, viz., by electric magnetization. Our bodies are like a storage battery. Periodically we charge them with electricity. So you see the automaton really moves by wireless telegraphy transferred from our fingers to them, and that at a great distance. Thus if a heap of metal is not capable of originating a thought, when a sufficient force of electricity is conveyed to it, it is as much compelled to obey as if it were displaced by a visible bodily force. It is animated for the time being by the power thus infused into it. One could almost say it lives and reasons. Without this we could not make our automata supply the place of servants. If you follow the figure, Sir Thomas, it will show you to your room."

The Professor touched it three times with his hands, and it put itself into a rapid and gliding movement, skimming noiselessly over the floor. It went out by the doorway, and Sir Thomas had to quicken his footsteps to keep pace with the silent figure. After gliding down several corridors the automaton stopped, raised one arm and pointed to the door and then retired into a corner. Sir Thomas opened the door and entered a room spacious and beautifully furnished like one of those in the palaces of the old Indian princes.

CHAPTER V.

SIR THOMAS BROMNE'S MANUSCRIPT.

AT this period of his adventures, Sir Thomas conceived the idea of a book in which he would keep a record of his life in the thirtieth century—a kind of diary. The Historian found him a book which was composed of a peculiar paper which he said could not be destroyed by fire. This is how his manuscript starts :

“Am I sleeping or am I really awake? My long sleep has been finished. I have slept for one thousand years.

“What a strange assertion. And yet it is really true. Have ten centuries actually passed since I last saw the earth? Even now I feel almost inclined to doubt it, but I suppose it must be true, for the things I have lately heard and seen are sufficiently convincing proofs. I have succeeded in my invention; radium and electricity will prolong life. I, Sir Thomas Browne, was the first to discover this fact. Excuse an inventor expressing himself in this way. Naturally I feel very stiff. I can scarcely walk. But my mind is perfectly clear and retentive. It seems as if it were only yesterday that I was living in the twentieth century. I have almost lost the use of my right arm. I can feel the touch of my other upon it, but I cannot move it. It falls lifelessly at my side. I can only suppose that as I dozed off to sleep my right arm fell by my side and perhaps I laid on it.

“It seems to me to be a very curious thing, but the Professor assures me that he can, by the power of magnetic induction, bring back the lost power. He says he cannot do it in one day, but if I go to him for a few minutes every day the use will gradually and permanently be restored.

“Thus this wonderful power can be used with success in the art of therapeutics. The changes that had been made in the New World since 1905 were most amazing. There was no religion. The people of the thirtieth century believed in Mechanical Evolution and disproved that there existed any Creator.

“They affirmed that living protoplasm sprang by natural means, and under the influence of mechanical laws from the brute nature, and that without any special intervention of a Creator. They maintained that the material universe is wholly self-sufficient—that it had no cause outside itself and that all things without exception have been evolved out of the original nebula whereof the universe was first composed.

“During the next few days that followed I did not go outside the building, which I afterwards learnt was the World’s College of Sciences, and of which the Professor of Physics was President. It was a large building comprising several lecture halls, scientific lavatories and a number of chambers in which lived the most important scientists. It was considered to be a great honour to belong to the World’s College of Sciences. Indeed I learnt that it was looked upon as a position more to be coveted than that of M.P. or even a premier in my day. Every member of the College had two rooms, one in which he transacted business, relative to science, the other serving as a kind of sitting room. Numerous automaton figures filled the place of servants.

“They were so ingenious and so pliant to the operations of magnetic electricity that they actually seemed gifted with reason. I found much difficulty in distinguishing them from human forms endowed with thought. I could not control the automata, for I had not this gift of magnetic induction, so I was informed by the Professor of Physics. This power was never established by the first discoverers, he said, never achieved by a single generation; it had gone on increasing like other properties of race, in proportion as it has been

uniformly transmitted from parent to child, so at last it has become an instinct. Soon there sprang up between us a strong attachment. I respected the Professor of Physics for his vast knowledge. His brain seemed like a walking encyclopædia. I gradually became reconciled to chewing tabloids, and every day I went to the Professor of Physics' chambers and discussed with him subjects relative to life in the thirtieth century. We would sit and think and talk for hours; there was a curious effect of complete understanding between us, whether we talked or were still. One thing I learnt, and which rather surprised me, was the knowledge that all scientific discoveries had been made and that there was nothing more to be found or invented. The people of the thirtieth century had advanced to such a state that it was impossible to advance any further. Again we discussed the subject of war. I always considered that of all the monstrous irrational phenomena of the twentieth century war was certainly the most strikingly insane. Consider it in all its aspects. Was it not a sin to shed blood, to sacrifice so many lives of noble, able and accomplished men to please the ambition of a few politicians, kings and rulers, parliaments and assemblies.

"And they ruled and influenced the lives of nearly a quarter of mankind, these politicians, and their clownish conflicts swayed the world, made mirth, perhaps made excitement, and permitted—infinite misery.

"Sometimes nations would be irritated against each other by a violent or unconscientious Press. In any case I considered it a shame that the blood of civilized nations should flow in suicidal war when a little concession on both sides might avert it. We pretended to be civilized and advanced, and spoke with contempt of the barbaric modes of warfare practised by the savage nations. I should speak with less bitterness against wars had they been fought by the men who planned and made them.

"I think that had this been the case we should

have heard less of the glory of battles and heard more of the praises of reconciliations.

"My sentiments were alike expressed by the Professor.

"He could not understand how man could be so insane as to shed the blood of his fellow men, and would speak of the people that lived in my time as savages. "The world is beautiful, life is great and splendid," he said, "why permit such an ocean of avoidable suffering." Another thing that surprised and interested me was the ascertainment of the great longevity of life attained among them. They thought nothing of reaching a hundred years. For one reason there was an absence of alcoholic poisonings. Again they did not worry themselves, but took things quietly. Those who made frequent use of the elixir of life, a kind of violet thick fluid, often lived for one hundred and fifty years. I spoke of the clever men of my day, of great thinkers like Scophenhauer and Locke, orators like Cicero and Demosthenes, historians like Herodotus and Macauley, great poets as Milton and Shakespeare, Goethe and Schiller, and diplomatists such as Machiavelli, Disraeli and Bismarck. 'Learned men no doubt,' said the Professor of Physics in his casual, polite way. 'but sadly ignorant according to our way of thinking.'

"'You were wondering at the enormous size of our heads, Sir Thomas,' he said to me quite suddenly one day.

"I looked up quickly. I had indeed been thinking how large their heads were in proportion to their bodies, and it seemed to me that they would topple over if they attempted to walk.

"But how did the Professor conjecture my thoughts, for I had not expressed them.

"'You are right,' I said aloud, 'but may I ask how you made that guess?'

"'With pleasure, Sir Thomas. It was no guess; I merely read your thoughts.'

"'Impossible!'

"'Quite possible. Nothing could be easier.'

“ ‘How?’

“ ‘By telepathy, surely, you must have known it; why, it is quite an old science. Though I suppose since your time it has been more highly developed. Now-a-days telepathic messages are intentionally dispatched and received across great distances. Thoughts and images can be transferred from one mind to another without the agency of the recognized organs of sense. Just now when I read your mind two physical facts took place—the physical change in my brain, and the analogous physical change in yours.’

“ ‘You would do credit to Sherlock Holmes.’

“ ‘Never heard of him, Sir Thomas. I presume he was a clairvoyant of some note in your time.’

“ ‘Oh dear no, merely a fictitious detective.’

“ ‘That is not the only means by which I read your thoughts,’ continued the Professor.

“ ‘And what is the other way?’ I asked.

“ ‘By “cerebral radiations,” what may be popularly termed waves of thought emanating from the brain. We have long ago solved the problem of reproducing brain waves on photographic films. In thought, you allowed your left hand to rest a few inches from that small round table near you, the top of which is really a large sensitive plate. At once there appeared on it a dark figure representing my head, and a number of zig-zag strokes leading from it to another figure, a reproduction of my legs.

“ ‘From the hieroglyphics round this small picture, which would be quite unintelligible to you, Sir Thomas, but which have been learnt by us, I comprehended that you were contrasting my head with the size of my legs. Your thoughts were photographed. Now supposing for an experiment you place your hand over the table again, fingers pointing downwards, and think of some person or place. The plainer the idea is impressed on your intellect the better will be the picture on the table.’

“ ‘People I once knew in the twentieth century

passed through my mind and were X-rayed on the wonderful table. It was very interesting and most amusing—amusing because I conjectured in my thought, my imagination, some of my coadjutors of the twentieth century in ludicrous caricature.

“I saw a chimerical vision of Professor Herr Calmette, an intimate colleague, with two heads covered with eyes. Now he had a neck like an ostrich.

“I lay back in my chair and laughed till my sides ached.

“‘Would you be surprised if I told you that nearly everything in this room is made of the same substance as the top of the table?’ said the Professor, folding his arms and surveying me critically with his penetrating eyes. ‘Your thoughts can be reproduced on the walls and furniture.’

“‘Would I be surprised?’ I repeated quickly. ‘I should think so. That will account for the strange pictures I saw on the things in my room.’

“The Professor nodded.

“‘Although this material is rather expensive, almost everyone in this age possesses it,’ he said.

“On hearing this I relapsed into silence and fell into a deep reverie, still keeping my hand unconsciously over the table.

“I meditated on the disadvantages of telepathy and thought reading by ‘cerebral radiations.’

“Supposing, I reasoned to myself, that two strangers met together and they were not impressed with each other, how awkward must be the mental conversation that would pass between them.

“‘It would not be at all awkward,’ broke in the voice of the Professor.

“‘I do not agree with you here,’ I responded, dropping my hand with a start.

“‘You see,’ he explained, ‘there is a way by which we can control our mental powers in such a manner that our minds cannot be read.’

“‘The system of mind reading is very advanta-

geous to us in these days of quickness,' the Professor went on. We can converse with one another by thought without articulating a single word with our tongue. This is much easier too, for there is no need to hesitate and think over your words before uttering them. Again, it is very useful if we wish to describe some place or person to a friend. The result is that our friend receives a better idea of an image of the object conceived in our minds we wish to commune to him than that given by the most elucidative illustration. The colours are also reproduced with remarkable clearness.'

" 'How can you describe your emotions,' I asked, 'as for instance love, fear or sympathy?'

" 'That is rendered explanatory by certain impressions which we have learnt. Love would be represented by a number of rings varying in size according to the amount of love expressed by the brain. Fear would be shown by certain straight lines crossing each other. Sympathy would be denoted by various uneven strokes, and so on.'

" Often afterwards did I see people sitting round tables in their rooms mentally and conversably exchanging thoughts emanating from the fingers, which were placed four to eight inches from the tables.

" I have been to a dinner where there has been a roomful of people and yet not a single word has been spoken, simply the pointing of fingers to the walls and furniture in the room. Most everyone in the thirtieth century carried a small sensitive tablet which they used when there was nothing else available. The sensitive part of the plate was composed of a substance something like polished ivory, but of the purest white. The walls and furniture were veneered with this material. Some of these tablets were very handsome, with gold or silver edges embossed in relieved or raised work. Some were bordered with precious stones.

" They vied with each other to carry the most handsome or expensive tablet.

" The gentlemen carried them in their breast pockets,

while the ladies wore them suspended from their waists like the ladies of the twentieth century wore their chatelaines.

"I have frequently seen gentlemen meet, pull out their tablets and exchange a silent conversation, holding the tablet with one hand and passing their fingers over it with the other.

"Ladies would stop, reach down their dress for the tablet and commence plying their fingers.

CHAPTER VI.

AN UNCANNY EXPERIENCE.

I WENT back to my rooms after the long discourse on cerebral radiations, and for the rest of the day I thought of nothing else but of mind reading. Towards the evening Faure-Fremiet came to my chamber for a little chat, and I once again approached him on this remarkable science.

"I cannot understand why you have never heard of psychic research," he said.

I replied: "There was such a thing as hypnotism and clairvoyance in my time, but it was so abused by charlatans and quacks that it was treated with contempt by sceptics."

"The powers of telepathy, thought-transference and hypnotism have been developed to such an extent that it would seem almost magical to you," he said. "You know that some philosophers have believed that some such powers were exercised by the so-called demon-possessed priestesses of the old Greek oracles. However that may have been, we have men and women in whom capabilities of the kind are discerned and who have the exercise of their faculties, which to the uninitiated would appear simply miraculous."

"I wish," I said, "I were similarly endowed in the case of an involuntary collision with these powers."

"Not in the least," said Faure-Fremiet. "The secrets are not known to everyone, but with the great majority it remains an aspiration, comparatively few exhibiting the capability to acquire the higher developments of the faculties which the savants attain."

"Come to my room and I will show you an interesting book on telepathy," he said.

As he spoke he led the way to the door and opened

it, waiting for me to precede him in our exit from the room. I passed him and essayed to reach the corridor. But ere I crossed the threshold of the door my progress was mysteriously arrested. There was no visible obstacle or hindrance to my exit. The way was clear. The broad corridor was fully lit. No tangible influence, human or super-human, offered a bar to my steps, and yet I was perfectly incapable of further effort to proceed. There was, I believe, a strange disease to which certain semi-paralytics were subjected in my time which developed in its earlier stages a curious inability to pass through the door of a room.

I have been told by medical men that the victims of this malady, after striving for minutes together to pass out—sometimes from an ordinary room, sometimes from a railway carriage, are only able to accomplish their purpose by throwing some object—a pocket handkerchief for instance—in front of them and by a supreme effort of will compelling themselves to dart forward and pick it up. The recollection of this came to me, and wondering whether I too had the premonitory symptoms of an attack of this kind, I threw—or attempted to throw—my pocket-handkerchief from me into the corridor.

To my astonishment it would not leave my hands.

Then I remember I urged myself onward, striving to persuade myself that I must be half asleep and under the influence of delusion. But the resistance was beyond doubt real. Perhaps you have had at some time or another one of those queer dreams in which the physical capacity for walking appears to be strangely suspended. The legs seemed weighed by huge fetters and the feet vainly striving to lift themselves from the path to which they seemed chained, as if by some irresistible magnetic attraction. I was not so much alarmed as puzzled. The whole experience seemed so ridiculous. But it came so quickly and yet so unmistakably, that I had no time to

question Faure-Fremiet before he saw that something was wrong.

"Go along, Sir Thomas, I'm coming," he exclaimed.

"I can't—I can't get out," I responded feebly, clinging to one side of the doorway.

"Can't get out!" said he, seizing my other arm. "Nonsense!"

And then I saw that he too was met irresistibly by the same extraordinary resistance that had so mysteriously mastered my own volition.

For a moment or two we gazed at each other in silence.

"What is it," I asked at length. "I am sure you would play no tricks. The way seems perfectly clear before us, and yet the air itself might be a wall of adamant. Is this the work of the adepts you have been describing?"

"I think it must be," he replied musingly. "Let us return to our seats."

And turning as he spoke he led the way back to the chairs we had just vacated.

Just at this moment I heard the Professor's step coming along the corridor.

I glanced quickly at Faure-Fermiet and he smiled in return.

"He little suspects how his progress will be impeded if he tries to enter this room," he said, bending forward and speaking in an undertone.

To our undisguised astonishment, the Professor entered the room without the least apparent trouble, and looking as indifferent as possible.

As though he had forgotten something he went through the doorway again, and again reappeared in the room.

"Hello!" said he, noting our looks of surprise. "Whatever is the matter? You both look scared. Seen a ghost, eh?"

"Not exactly," Faure-Fremiet answered. "We have vainly been trying to get out of that door," he

said, scratching his head and then pointing to it. "It is very uncomprehensible to us, I——"

"Is this intended for a joke?" broke in the Professor, motioning towards the door. "You must be under some delusion."

"Not at all," snapped Faure-Fremiet, rising from his seat and walking towards the door. "You will perceive that though there is no visible obstruction I shall be powerless to get into the corridor."

Contrary to our expectations, Faure-Fremiet's and mine, he walked easily out of the room and back again.

The Professor laughed heartily.

"Can't make it out," muttered Faure-Fremiet, examining the posts and the bottom of the doorway.

"Just see if you can get through," he said, looking up and addressing me.

I rose and followed him and found nothing this time to interfere with my exit from the room.

So ridiculous seemed my experience that I half persuaded myself that Faure-Fremiet and I must have been drunk, and that the cause of our inability to find our way out of the room must have been the unsteadiness of our legs and nothing more, but yet how could this be so, for there was no wine or other intoxicating drinks.

On glancing at the Professor the whole thing was revealed to me. Faure-Fremiet had said that in all probability it was the work of their adepts. The Professor was one of the few who were versed in their mysterious science.

My opinion was also confirmed by the winking of his left eye, and which was also noticed by Faure-Fremiet.

"So you are the author of this little drama," he cried, advancing and facing the Professor. "You never told me that you were versed in this science."

"No, because this is my first successful experiment," was the reply. "I am yet a novice. I thought it would be very interesting to mystify you when a favourable opportunity presented itself."

He laughed again, in which we all joined.

"I came really to ask if Sir Thomas had seen the thirtieth century newspaper?" he said after a short pause.

"No," I replied, "I should like to see it very much, but I should have thought that in this age the newspaper would have been superseded years ago by some improved method of distributing the news."

"So it has," was the answer, "as I will show you if you will come this way."

"I said newspaper," he returned, "because I thought you would be better able to understand what I meant."

CHAPTER VII.

THE NEWSPAPER.

I WAS presently shown into a room that I had never before entered. There was no furniture. On one side, however, there was suspended on the wall what looked like a translucent sheet of porcelain in a frame, a sort of slate indeed, but of larger dimensions than those I have seen in the shops of tradesmen in my time, for making memoranda of orders, and similar purposes.

I should say it was about three feet square.

"This is what we call the paper," said the Professor, pointing to it. "Let us go nearer and examine it. There you are," he said, as we ranged ourselves round it.

"Just the sort of thing, you see, only much better than the electric column-tape printing machine by which you obtained your news in the twentieth century. Now every citizen gets it for a mere trifle yearly, and you may depend implicitly on its accuracy. The newspapers of the twentieth century are much too antiquated as media of intelligence for an up-to-date people like us. The news it gave currency to was generally unreliable. Its methods of production and distribution too were so very wasteful and behind the age when you come to consider about it."

"Think of the millions of reams of paper wasted in London daily in your time, and the amount of labour exerted to give every man his separate sheet of newspaper, three parts of which he never read or thought of reading."

"Where is the news?" I asked at length.

"Just watch the plate," he returned.

I saw him touch something and heard the silvery tinkle of a bell.

"That shows me that the news has been sent,"

he observed, sliding something along the bottom of the frame.

As I looked on the plate characters began to appear in regular lines and columns, as if printed by some invisible typist on the inner side of the surface and plainly showing through the glass or whatever it was.

"I wish you would please explain this invention to me," I asked, my interest now fully aroused.

"I shall be delighted to," he said, turning from the plate and addressing himself to me.

"The principles of the paper are akin to the unisophone. We will suppose, for instance, that something happens in some part of England or abroad. The news is immediately sent to America by the unisophone, which from any part of the world would not take ten minutes at the outside.

"Why from America?" I interposed.

"Because in Wyuna, the most beautiful city in America, are the offices of the International Simplex News Syndicate. This syndicate supplies the whole world with the latest news. If anything happens in another part of London the report is first of all sent to Wyuna ere it reaches us, and almost as quickly as if it were sent direct."

"How is it managed?" I queried.

"Well, as I was saying, we supposed that some news had been sent from some part of England or abroad to Wyuna. We will assume, for instance, that an important person died this moment in Nantissa, the thirtieth century Manchester. A reporter would immediately hasten to an unisophone in the office in Wyuna. These offices, by the way, are very extensive, covering several acres of ground and comprising many blocks of buildings and containing something like three hundred unisophones. The report having been received by one of the men in charge of the English unisophones, it is immediately taken by him to a large room near, in which stands a large table. This table is divided into twenty-four equal

squares, twelve each side, and every part has a complete set of letters like the letters of your old fashioned typewriters, fixed in the top of the table. Round are seated twenty-four men, one to each part. One man has charge of the news, another advertisements, and so on. The man who has received the report dictates his message to one of the twenty-four operators, who in turn touches the letters of his key-board, corresponding to the piece dictated like the typists in the far-off times used to type their letters. Although the keys do not yield to the touch of the operator, the slightest pressure of his fingers has reproduced on each paper in the houses of everyone on the earth the report of the death that was originally sent from Nantissa. All this has taken place within the short space of twenty minutes, to the most distant country from America."

To say I was surprised on learning this remarkable means of publishing news in the thirtieth century would be saying very little. I was struck dumb with astonishment. It was some seconds before I could find my voice to ask how the news was sent from America.

"By the wireless device," was the answer. "In much the same manner as the unisophone is worked, the only difference being that one is managed by wireless telephony and the other by wireless telegraphy. It can almost be compared to the telautograph, by which intelligence, sketches, and diagrams are transmitted from place to place by electricity without wires, as I think I have already told you. So you see that now-a-days we are in touch with all parts of the globe, and if anything happens on the opposite side of the earth it is known to everyone in twenty minutes. This is one of the greatest advantages of our paper; we do not have to wait till we get our *Times* or *Daily Mail* to know what has happened perhaps twenty-four hours ago. And we can rely on the truth of all that is published on our paper, because wilful error would speedily bring condign punishment to the agents of news-service"

"I readily agree that your system is an admirable one. And how generally is the news arranged?"

"First as a rule," said the Professor, "we get what we call the orders for the day. Notifications of public business affecting the general mass of the people."

"That is followed by general news interspersed by advertisements. The latter are few, as there are no competing tradesmen now to lie one against the other in print. For the most part the slate before you suffices to record the news, but if not it slides down automatically on the ledge you see below and is replaced by another."

"Well now," said I, "translate for me some of the news, for the characters are foreign to me."

Running his eye down the column and passing several paragraphs evidently of no personal interest, presently the Professor exclaimed, "Ah! here is something that will interest you. We are informed that Sir Thomas Browne has almost recovered the use of his arm by use of medical electricity, and has lost the effects of his long sleep. He is getting accustomed to living in the thirtieth century. Naturally many drastic changes have occurred since his time which have surprised him. He evinced some astonishment at the automata, which he admitted were very wonderful, but said that he preferred the domestic servant of the twentieth century."

For the benefit of our readers, and to satisfy our own curiosity, we communicated with Faure-Fremiet, the well-known historiographer, who at once furnished us with the history of the domestic servant, which is now a *rara avis*, or rather it has long since passed out of date."

I saw that the Professor and Faure-Fremiet were smiling.

"I do not remember ever expressing my views on this subject to anyone," I said, addressing myself to them both.

"Do not forget the advantages of telepathy Sir Thomas."

CHAPTER VIII.

AN EXTRAORDINARY CURE.

ABOUT six days after my awakening, as I sat in my room wondering what I should do to pass the time away, a sharp rap sounded on the door, and in glided an automaton.

I might here explain that there were no catches or locks to the doors. They could be opened by pushing either way. This was to facilitate the difficulty that would otherwise happen in enabling the automata to enter a room.

The figure handed me a slip of paper and passed swiftly out of the room again. In taking the paper from the figure my right hand, which was almost restored by this time, came in contact with its hand, and I immediately experienced a powerful shock of electricity through my whole body. The effect was as instantaneous as any writer of melo-faro could hope for. My arm was quite cured.

On recovering my self-possession I picked up the sheet of paper, which had fallen on to the ground, and read:

"Sir Thomas, I hope your arm is thoroughly restored. I shall be pleased to see you this morning at your earliest convenience."

At once I saw the clever movement of the Professor. He had used the automaton as an agential purpose, whereby a strong current of electricity was sent through my body, and particularly through my almost helpless arm, to effect a final cure. There was no longer any doubt about it. I could use my arm as well as I could before with no effects of my recent disablement. I immediately hastened to the Professor's chamber to express my sense of gratitude on my miraculous recovery.

He greeted me with a smile and looked curiously at my extended right arm.

"Why, you can use it!" he said, with affected surprise.

"Yes," I replied, "I feel more than thankful to you."

"To me! Why? You could scarcely move your fingers yesterday, and I have not seen you since."

"You need not assume this role, and pretend you know nothing about it," I said, "for it was you that effected the complete cure through the medium of the automaton, and I again repeat I am more than thankful."

"Do not mention it, Sir Thomas, I am pleased to be of some service to you. By the way, I particularly wished to see you this morning, because I have a suggestion to make which I think will meet with your approval. Would you like to make a series of tours round the earth and experience the thirtieth century mode of travelling? To journey by the cube, electric ball and my airship?"

"Wonderful sensation!"

"Career at lightning speed through space! See things upside down! None of your old-fashioned ways of travelling by the train that could only move at the rate of a mile a minute; or, crawling along a road at eighty miles an hour in an evil-smelling motor-car."

It was some seconds before I replied:

"I cannot say that I quite like the prospect of being hurled through the air at 'lightning speed.' But what of the danger?" I said solemnly.

"Danger! Pshaw! Nothing like the risks there were, Sir Thomas. Take for instance the railway employees that were killed or injured. According to the returns furnished by railway companies to your Board of Trade, one hundred and fifty thousand railway employees were killed or injured in this country every ten years. This was employees alone, not to speak of passengers and accidents by other means of

journeying. Contrast this by the combined methods of travelling to-day. Take for instance the statistics of the year 2004, and what do we find in the way of accidents? Only three, and one resulted in the loss of two lives, and this was proved to have been caused through extreme carelessness."

I now felt completely reassured by the Professor's words, and said that nothing would give me greater pleasure than to travel round the world and see it as it was in the thirtieth century, but adding that I did not wish to encroach on his valuable time.

"Do not speak of it," he answered quickly in his kind manner, "I have nothing important at present to monopolize my attention, and even if I had it would be a mere bagatelle compared with the honour of showing you round the globe. Obviously it is necessary that our arrangements should be kept quite secret," he said, slowly, "or we shall be followed by nearly the whole population of the earth. Everyone is anxious to see you, Sir Thomas. I have asked Faure-Fremiet to accompany us, and he readily agreed to come. I see no reason why we should not start at once; that is, of course, if you are ready, and if Faure-Fremiet."

At this juncture the door of an adjoining room opened and Faure-Fremiet himself appeared.

"Hullo you two, putting your heads together to conspire against me?" he said laughingly.

"No," said the Professor, "we were merely discussing our tour, and Sir Thomas consents to come with us. I suggested that we should start at once if you are both ready."

"Oh, I am quite ready," said Faure-Fremiet, placing his hat on his head. "Are you, Sir Thomas?" he said, turning and addressing me.

"I don't know," I answered slowly, "I have no luggage, and my hat is"

"You require no luggage," interrupted the Professor, "and the automaton will fetch your hat."

He turned and faced the automaton figure that was standing motionless in the corner and excited it into a gliding movement with a touch of his hand. In another minute it returned with my hat.

Before I could speak again, I was gently led by the Professor and Faure-Fremiet out of the College of Sciences into the street. I now understand why one walked each side of me. It was to hold me up. If they had not done so I must have fallen, for the street, or stage, on which we were standing began to move swiftly down the street between the huge blocks of building on either side. I found time to look about me as I glided smoothly on this moving stage, still clinging to my friends. I saw that there was no traffic of any description in the streets. The roads were entirely covered by a series of stages from one side to the other, some coming one way and others going in the opposite direction. On them stood a number of people, who gazed at me in amazement as they passed and re-passed me just as if I was a strange animal. I noticed that some of the stages moved quicker than others. It was very interesting to watch the gliding populace moving silently and smoothly up and down the streets like skaters skimming over ice. The silence was reminiscent to me of the gondolas on the canals of old Venice. I was much amused to see some of them leap from one stage to another, to move slower or faster or to go the opposite way. There were no falls—no accidents—though they had but small legs. I felt sure that I could not do it at all.

As we still passed on, a gentleman coming in the opposite direction placed the palm of his hand across his forehead. This I learned was the thirtieth century way of saluting a friend instead of raising the hat. The Professor did the same, and suddenly I heard a man say in the thirtieth century language :

“That is the Professor of Physics and Sir Thomas Browne, the twentieth century scientist.”

"Where?" asked another.

This cry was taken up by everyone near, and immediately those who were going in the opposite direction to the way I was going, leaped on another stage to follow us. On glancing behind me I saw that a large crowd was now pursuing us, and which was gradually swelling from other streets.

"Let us take the private express stage," said the Professor, a look of annoyance crossing his face.

Before I was cognisant of their intentions, they lifted me on a short stationary platform with ten padded seats and backs placed one behind the other and running the entire length of the stage.

"Take your seats as quickly as you can," said the Professor.

We did so, Faure-Fremiet sitting immediately behind me, while the Professor took the first seat. I lay back comfortably and wondered what was next going to happen, when I saw the Professor place one foot on something not unlike an organ stop. The platform, which had been standing inert, now leapt forward with remarkable swiftness, and soon we left our followers far behind.

Presently we stopped before a giant structure such as I had never before seen in the twentieth century in any part of the world.

The Professor and Faure-Fremiet sprang out of the car and bade me follow them. We ascended about half-a-dozen marble steps and passed through a big entrance and stood inside.

CHAPTER IX.

TRAVELLING IN 2905.

WHAT I beheld almost took my breath away. Try to imagine a steel girded glass domed building, all clear space within, without roof, supporting pillars, or other internal obstruction, large enough to contain fifteen ordinary twentieth century squares. There were elevators and moving sidewalks. Aladdin's palace could not have been so colossal. Near the top and extending round the building were a large number of big circular holes. Sunk in the ground in the centre of this mammoth steel structure were thirty enormous cylinders pointing to the holes above. You could walk straight from the floor into the cylinder. I do not exaggerate when I say that an express train could easily pass down the inside without touching the sides.

"For what purpose are they there?" I asked myself. "Are they guns? Was this place a fortress?" Then I remembered that wars had been abolished and dismissed the idea.

My reflections were suddenly cut short by seeing the air become darkened. On looking up I saw what appeared to be a huge cannon-ball come swiftly through one of the apertures and the next instant pass unerringly down the inside of the roller-like body and disappear. Soon afterwards there emerged from the inside two men, who were presently followed by several more.

How strange it looked to me to see these men coming out of the mouth of the cylinder one after another, looking as unconcerned as possible; a few made their way to one numbered "7," to which my attention was now drawn by a number of people walking along the floor and passing into the roller-like body.

How orderly everything was conducted. There was no rushing and tearing about such as it was customary to witness in my time. I still kept my eyes fixed on number 7, anticipating that something was going to happen, but not knowing what to expect. Suddenly the loud clanging of an alarm bell, hung somewhere out of sight, reverberated through the building. This was followed by a rumbling noise beneath the floor as if hosts upon hosts of terrestrial artillery were marching to battle through the bowels of the earth. Simultaneously there flashed from the mouth of No. 7 a long cylindric projectile and vanished through another opening with a whirring sound. Then I at once remembered that I had seen these projectiles shoot by the window of my chamber and had wondered what they were. Just at this moment the Professor came up and joined us.

"Well, what do you think of this way of traveling?" he asked interrogatively, addressing himself to me.

"I hardly know," I answered, "I wish you would kindly explain these things to me," I said, pointing to the huge cylinders.

"You see those guns?" he said, following the direction of my hand.

"Guns!" I echoed.

"Yes," he replied. "In these days of the unisophone and wireless electricity the old-fashioned railroads are far too slow to meet the demands of the people. So that now, where the railway stations probably formerly stood, are huge electro-magnetic guns, into which projectiles are fitted capable of accommodating some fifty or sixty people. To resist any concussions the interiors are well padded. These projectiles are fired from town to town, each one being so timed as to drop into the pit or gun to which it is fired."

"How far will they go?" I asked.

"To a distance almost indefinite," he answered

quickly ; " at least, I put it modestly when I say from three to four hundred miles."

" How are they fired ? " I next questioned.

" By electricity and the kick of an explosion, which is made strong enough to drive these human cannon-balls at a colossal speed ; the principle of this special gun is the passing of a powerful current through wire spirals in to the bore without heating. Instead of gases generated by burning gunpowder, the more economical and easily controlled gases derived from kerosene oil are used. The gas, mixed with air, is a powerful explosive. The mixture is driven into the explosive cylinder under high pressure. An automatic electric device fires the mixture by means of an electric spark. A violent explosion results, which drives the projectile from the gun. All this is done beneath this floor," continued the Professor, striking one foot sharply on the ground to emphasize his remark.

" By what," I asked, " automaton figures ? "

" No," he answered, shaking his head, " the machinery is too complex even to be trusted to the automata. The guns are controlled by experienced men, who are specially trained for this work."

" This is what you call the electric-ball ? " said I shortly.

He nodded.

" We use round projectiles for short journeys, and torpedo shaped bodies for longer distances, and different guns for each. It is now quite time we were going," he said, glancing quickly round him. " No. 22 for Elvedon."

" Elvedon ! " I repeated.

" Yes," answered the Professor. " I think it was called Liverpool in your time. Follow me."

We followed him, Faure-Fremiet and I, for about one hundred yards. The Professor walked calmly past several guns till he came to one numbered 22.

I hurried past the mouth of each gun, much to Faure-

Fremiet's amusement, for I dreaded lest a projectile should leap out as we were passing.

With fearful apprehension I now walked behind the Professor down the gun, with Faure-Fremiet bringing up the rear. I felt a slight twinge of my old complaint—nerves—the sensations of a doomed man walking to the scaffold.

We proceeded.

On looking down this dark passage over the Professor's shoulders I saw a bright light in a compartment at the bottom through a small doorway. This was the interior of a torpedo-shaped projectile.

Soon we were all three inside, and I at once looked around me. On either side was a row of seats, thickly padded, with room enough for thirty people to sit on each side. The compartment was half full, and we took our seat near the bottom. Through the thick windows that ran the entire length of the car, I could dimly see the steel sides of the gun into which the projectile was fitted.

My heart now began to beat wildly, expecting some terrible catastrophic event to happen. I looked at the Professor, then at Faure-Fremiet, and lastly at the other passengers, who were curiously regarding me. They all looked nonchalant.

Supposing the gun should explode or sufficient power was not put behind the projectile to carry it to its destination, and we should fall to the ground.

These were the thoughts that evolved rapidly through my mind. I rose to leave the place, but the Professor pulled me gently back to my seat. At this moment, too, the door closed automatically, and the light went out. I heard the faint clicking of a bell coming, as it were, from a church some miles away. What happened next I cannot quite remember. I have a confused idea of the projectile giving a sharp jerk forward and rising rapidly upward, and suddenly emerging into broad daylight. The electric-ball was moving with terrible swiftness through the air with a loud hissing sound like

escaping steam, and as straight as an arrow shot from a bow, without the slightest deviation.

I must admit that it was very easy and comfortable travelling in this way. There was no jolting or bumping. I should say that we were about two hundred yards from the ground.

I gazed out of the window and saw numerous black objects flash by. A town or village would appear on the horizon in front, and the next second fade out of sight behind us. I shuddered when I thought of what must be our fate if the automatic door was to open. We should all be instantly asphyxiated. A few drops of rain striking a man's eye would blind him permanently. How long we had been travelling I do not know, for I had been in such a state of fear that I had not looked at my watch before starting. It could not have been more than ten minutes, however, when I felt the projectile gradually decreasing its speed.

"We are going to fall to earth," I said to myself.

Evidently the professor and Faure-Fremiet did not think so, for their faces did not express the slightest sign of fear, and they were chatting to each other and laughing as if they were sitting in their rooms in the World's College of Sciences.

There was but a slight jerk as we came into the gun of the next station, and in a few minutes we stood outside in the street again.

CHAPTER X.

THE AUTOMATIC CUBE TRANSMITTER.

HALF-WAY down another street we were confronted by a large edifice. Inside this building were a number of electric lifts. We descended in one and found ourselves in what appeared to be a huge submarine station lighted as brightly as day. At one end was an immense dynamo, at the back of which was a buffer about thirty feet long worked by steel springs attached to the machine.

Forty yards distant from this powerful instrument was another buffer, but entirely different from the former one, it being composed of pneumatic tubing, while at its extreme end the great "Cube" was attached.

The cube was in shape identical with a large shell, only it was fitted with four wheels that ran on rails laid on the Great Atlantic Tunnel.

The Professor and Faure-Fremiet stepped inside. The doors were closed, and as we made ourselves comfortable, a phonograph at the far end screamed forth: "Ready—seat all! Off!"

The official in charge pressed a button, which let loose the massive springs, striking the pneumatic buffer with such force that the cube was sent spinning along the great tunnel. The speed was several times swifter than the projectile, yet there was not the slightest jolt or jump, such as it was common to experience in the railway train of my day. We might have been riding calmly over the still waters of a lake, so smooth was the travelling.

I could scarcely believe that we were in a tunnel, for it was so brilliantly lighted, as also was the interior of the cube.

There were several passengers beside ourselves, but they were apparently so occupied in a silent con-

versation that we were not noticed, much to my great relief, for I disliked to be gazed at by the thirtieth century people, as though I was some curious object.

"To where are we going?" I asked, having a vague idea that our destination was America, but doubting if it could be possible to get there in a tunnel.

"New York," was the response.

"How many days will it take to complete the journey?"

At this the Professor and Faure-Fremiet both laughed as if I had made some jocose statement.

"Please excuse our breach of etiquette in laughing at your expense, Sir Thomas, but your remark" here he laughed again. "We do not live in the age of the competitive old-fashioned steamships. Smutty things they were too, those so-called ocean greyhounds. Take the last recorded times of the journeys made from England by the liners of Hamburg-American, North-German Lloyd or White Star Companies. The result is that we find it took nearly a whole week to get to America. Just fancy a whole week!" he repeated. "What a big place the world must have been to people in your time, Sir Thomas. Hark! he held his finger up.

I heard a muffled noise in the tunnel, as if a dozen twentieth century railway engines were letting off steam in some distant station.

"How do you account for that hissing noise?" I asked.

The Professor did not at once answer, but pointed to the ceiling.

I followed his glance, and saw at the centre of the roof a small dial like the face of a watch, on which were the figures thirty-five. As I looked the numbers changed to thirty-six, thirty-seven, thirty-eight, and so on in rapid succession almost as quickly as I could count.

"What do those figures represent?" I queried.

"A *taur*," he replied, "which I think would be

equivalent to two thousand yards in your time, or a little over one of your miles."

"You surely do not mean to imply that every time another figure appears we have advanced two thousand yards?" I gasped.

He nodded.

I was too astonished to speak again for some few seconds. I felt half inclined to believe that the Professor was joking, or that I had not heard aright. I knew that we were going at a colossal speed, but I had no conception of the fearful celerity at which we were going. The hissing sound must be caused by the tremendous rush of the cube through the tunnel,

I again fixed my eyes on the indicator, and tried to grapple with the figures. It registered forty-eight. At this rate we were travelling about thirty miles a minute, I reasoned to myself. Thirty miles a minute, one thousand eight hundred miles an hour. In less than three hours we shall be in America, of course presuming it has not shifted since 1905.

"Does this tunnel extend to America?" I asked of the Professor.

"Yes, we are now passing about 150 feet beneath the bottom of the Atlantic Ocean, and almost as direct as if you drew a straight line on the map from Elvedon to New York. These tunnels, or, as we call them, Electric Cube Transmitters, run under the bed of every ocean, forming a complete network. The cube resembles the old Central London Railway, with two independent tunnels. One conduit is reserved for the up, and the other for the down line. To this end, and because of its great practicability in ventilation, the tube system has been chosen. The London merchant can now contemplate a visit to America in the cube with the same equanimity as the twentieth century merchant regarded a run to Manchester. He could breakfast at the Savoy and dine at the Waldorf-Astoria if these two places were still in existence. Comfortable and continuous travelling in an electrically lighted tunnel

has taken the place of a sea crossing, which was seldom 'smooth,' often a source of agony, and always a source of trouble and inconvenience. Electrical traction and lighting, as we know them to-day, have minimised the discomforts of a long tunnel."

"The construction of these tunnels must have necessitated the removal of millions of tons of earth, and taken years to build," I suggested.

"Not at all," he replied. "This is done quite easily by a most formidable innovation, the Sub-marine Torpedo, capable of burrowing its way through the ground like a huge mechanical mole, and if it is required it can at a given moment raise a veritable volcano. Its progress underground is slow, but very sure. The hydraulic drills which protrude from its head can bore into the hardest rock at the rate of 36 inches a minute; this implies an advance of 4,320 yards a day, working 24 hours."

"This invention is an improvement on the Beaufort drill that was used in the making of the Calais-Dover tunnel."

"When were the tunnels first built?" I questioned.

"I do not rightly know," he replied. "It must be some centuries ago, but you must understand that the first tunnel was quite a rude construction in contrast with the present-day cube, especially in regard to speed, and safety. We must ask Faure-Fremiet to give us the whole history of tunnelling," said the Professor, turning to the historian.

"Where was the first tunnel built?" I asked of Faure-Fremiet.

"Between France and England," he answered. "And what a lot of controversy the proposal of building this tunnel caused. At the mention of it men used to shrug their shoulders. One part of the English nation condemned the project, by saying that it would destroy the security which Great Britain's insular position accorded and would render her liable to attack by an invading army."

"This opposition was chiefly led by a distinguished General, who had merely to invoke the spectre of a foreign invasion to place most of this nation by his side.

"I should tell you that some time before this a tunnel was started.

"The Société Française du Tunnel Sous-Marin was incorporated in the early seventies for the purpose of carrying out this great work. A shaft was sunk on the French side of the Channel at a point about six miles from Calais, and the English terminus was fixed near to Dover.

"A considerable amount of tunnelling was done by the French company, but after they had spent about half a million dollars, the British Government put a stop to the work, ostensibly for this reason, that a tunnel beneath the Channel would place us in fear of an invasion, as before mentioned.

"I remember reading about it," I interposed.

"You would do so, of course," said Faure-Freniet, glancing at me.

"Well, as time went on, and our relations with France became more cordial, people gradually began to change their views, and to think that a tunnel would not be so undesirable.

"A notable politician who lived at this time (we have lost all traces of his name) made a stirring speech on the advantages of a tunnel between the two countries.

"He said it was a foolish idea to think of invasion, for in a few minutes the tunnel could be filled with water and the invading horde submerged. Even if the English end of the tunnel was seized by a couple of thousand men, it would be impossible for a formidable army to emerge from it without the certainty of being annihilated. Improved armaments and explosives would make the guarding of the tunnel mouth safe."

"But, should any be sceptical on the point," he said, "it would obviously be the first duty of the builders of the tunnel to meet their susceptibilities by

making such provision for the defence as shall be reliable, and adequate beyond all possibility of cavil or question."

"In the end the French Government became warmly attached to the proposal," continued Faure-Fremiet, "and the British Government were equally sympathetic."

"They went further than this by actually building the tunnel."

"How did the people take to this new project," I asked.

"Why, three months afterwards everybody received it as a settled fact, and as the most commodious way of transport. People were grateful to the engineers who designed it, to the contractors who executed the work, and to the capitalists who invested their money in one of the most magnificent undertakings the world has ever seen.

"The Dover-Calais passage by sea was always notoriously rough, and uncomfortable, and the substitution of the cube between London and Paris has been a decided boon to hundreds of thousands of travellers between England and the continent."

"Then England was never invaded?" I remarked.

"No," answered Faure-Fremiet. "It is not too much to assume that the net result of this international scheme has been in the interest of peace. No one, indeed, can estimate the enormous current of traffic that has been established as the result of cutting through the white chalk streak that lies beneath the shimmering Channel.

"Since the first tunnel was built between France and England, others have been constructed, so that now you can go in the same route as the ancients did in their old ships—under the sea, instead of being above it.

"It has caused the terrors of—what did you used to call it?—*mal de mer*, to disappear, for the cube is an excellent cure for sea-sickness."

"Is there any danger of water finding its way through any crack or fissure and flooding the tunnels?" I queried.

"None in the least," answered the Professor. "The tunnels are lined with cast-iron tubing to prevent any infiltration of water."

Neither of us spoke again for some minutes.

I turned my attention to the indicator, which now showed the number 2,101, and then to the other occupants of the tube, who were excitedly pointing in an argumentative way.

"I wish," said I, in an undertone, "that I was sufficiently acquainted with cerebral radiations that I might read the characters on the sides of the cube, and know what they are discussing."

The Professor, who had been thoughtfully regarding them, turned to me.

"They are having a little controversy on the signals from Mars, that are puzzling everyone, even the astronomers themselves," he said. "Queer thing about those signals. Can't understand it," he went on pithily.

Then we talked of other things. Presently we heard a phonograph shout out, "New Yoo-or-ork! Get oo-ut!" A bump, and we had reached our destination.

Stepping out of the cube after the Professor and Faure-Fremiet, I saw that we were in a building identical with the one at Elvedon, except perhaps that it was a trifle larger. I did not essay to ask the Professor any questions, but followed him and Faure-Fremiet. We stepped into an elevator; there was a quick rushing motion upwards, and the next moment we were inside another large building, apparently built immediately over the underground station. There was no need for me to interrogate the Professor to know what this place was for.

The huge guns ranged round the interior were sufficient to tell me that I was shortly again to feel the sensations of being shot through the air in a projectile.

"To where are we going now?" I enquired of Fauremriet.

"Only to another part of New York," he responded, "a question of fifteen seconds."

We passed down the bore of one of the guns near. I was rather surprised to find that the projectile into which we passed and seated ourselves, was not cylindric like the others I had seen, but perfectly round like a huge cricket ball.

It was well padded to prevent any concussion, with sitting accommodation for about twenty people only.

"Why are some of the projectiles round and the others a roller-body shape?" I asked of the Professor.

"That is explained in this way," he answered. "The torpedo-shape projectiles are for long distances and the round ones are for short journeys. We are going to another station in the suburbs, a distance of five miles."

Ere he finished speaking, the door of this human cannon closed with a snap like the shutting of a steel trap. A bell sounded faintly—a rumbling—a jerk, and we were riding through the air. All this happened in a time shorter than I pen the lines of this sentence. Without any warning the projectile came to a sudden stop in the air, so it seemed to me.

There was no window in the round projectile, only a small aperture in the top, which apparently served as a ventilator. I could not see, therefore, what had caused this quick cessation of progressive motion. I remembered how I waited for that falling sensation with feelings more easily imagined than described. I felt sure in my mind that through some unaccountable means the projectile had ceased its volitation in mid-air and we should fall to the ground with fatal results.

I was so paralysed with fear that I sat irresolute and mute. I was not long to remain in this state of mind, for the door of the projectile opened. Then I saw that it was not stationed in the air, but fitted

inside a gun in the station of our destination. I breathed freely, and hurried with the others out of what I shall call in future the Black Maria—the round projectile without windows. I give it this *sobriquet*, not because it actually resembles an ancient prison van in appearance, but there is a sense of being imprisoned beyond all hope of escape, which is fully realized when passing through the air, and not being able to look out.

Where was the New York of 1905 ? The high city of clamour, clangour, and infuriated energy, wind-swept and competition swept, its huge buildings jostling one another, and straining ever upwards for a place in the sky, the fallen pitilessly overshadowed. The New York of 2905 was indeed a different city.

We passed the moving streets of the city. Once I fell on to an opposite stage, and had to be lifted by my worthy friends.

Once in the station we were not long in reaching Carron, a city in South America.

CHAPTER XI.

A CITY OF GLASS.

NEVER till my dying day shall I forget the beauty of the city of Carron. When I first gazed on it, from one of the lofty aerial stages, after emerging from the artificial light of the tunnel, its magnificence held me as if under some magic spell.

I observed that the buildings, which were all of some brilliant metallic lustre, like the specular iron, occurring frequently in crystals, upon which the rays of the sun refracted and filled the air with dazzling radiancy. Then I saw for the first time that the houses were built entirely of glass, and supported on skeletons of steel. The sides of the building rose smooth, and unbroken, except for pillars and other ornamentation to the very tops, which were fitted with stages for the airships and waiting rooms and restaurants. Not a single window appeared anywhere. There was no need of apertures in these structures of glass, except for ventilation, for with light pouring in through every part of the walls the illumination within was far better than the best of our ancient buildings.

Here and there a steel girder would throw a dark shadow, and the whole framework would stand revealed like the human skeleton on an X-ray plate.

There was not one single brick-work building anywhere to be seen. It was like looking on the sea, with the domes of buildings rising like enormous bubbles.

I could see the inmates in their houses going about their respective duties like strange animals moving in huge aquariums.

Some of the rooms had shutters on four sides. These, I suppose, were bedrooms and bathrooms, and this was done to secure privacy.

My attention was especially fixed on the tall skyscrapers. I should say some of them were over 300 feet high. They were not made of perfectly transparent glass, like the smaller buildings, but built of white pearly glass, about an inch in thickness, and reinforced by a steel wire screen, or net, such as was once used in roofing and building construction. The outer covering of glass was white and resembled marble, except that it was brighter and cleaner, dust blowing off it freely. These larger structures belonged to various companies.

To the left stood the offices of the Carron Banking Company; gigantic structures. By its side rose the huge buildings of the "Concentrated Food Trust."

The roofs of all the houses were flat, with gilt railings round the sides, from which airships darted hither and thither, like huge birds, with a whizzing sound, conveying their human freight from one aerial stage to another.

Rising higher than the highest edifice was a large board, about half-a-mile long and a hundred yards high, supported from the highest buildings by thick steel rods, and casting a long black shadow across the city. It bore on one side the letters C-A-R-R-O-N, and I suppose the same on the other, although I could not see them. I knew at once for what reason it was there because the Professor had taken the trouble to explain to me a similar one in London. It was to inform the aeronaut, when he was careering swiftly through the air, what part of the world he was in—a kind of signpost. The interior of the board was hollow, and at night time it was brilliantly lighted from the inside by electricity, the light showing through the letters, the colours of which were always changing, and gave a beautiful appearance to a town at night.

What struck me most was the cleanly appearance of the city. The smooth, polished surface of the glass gave no foothold for dust or dirt, and was, therefore, more sanitary. The moving stages in the streets were also free from dust and dirt. The Professor had showed

me how the platform carried all this away with it.

"Well, what is your impression of Carron?" suddenly broke in the voice of the Professor.

"Words fail me to describe the grandeur of your city," I said, still gazing at the beautiful scene before me in admiration. "I have visited nearly all the capitals of the whole world in my time, but I never saw anything to equal this."

"Didn't the ancients live in houses made of glass?" asked Faure-Fremiet curiously.

"I never saw or heard of them," I replied.

"That's queer," said he, musingly, "for I have amongst my collection of historical works a book in which a passage occurs something like this: 'People in glass houses should never throw stones.'"

I smiled faintly, and Faure-Fremiet gave me a quick glance.

"The sentence you have quoted is an old proverbial phrase."

"Ah, I see," exclaimed the Professor, "it means, I believe, that those who make a mistake themselves should not be ready to seek out the faults of others."

I nodded my head emphatically.

"And is there any danger of the glass breaking?" I said at length, turning and pointing to the city.

"None whatever," said the Professor, shaking his head decisively, "for the buildings you see before you are made of malleable glass—glass so tough that it cannot be broken. Perhaps you have read, Sir Thomas, of records of the past, some stories of the invention of malleable glass. When, in the reign of Tiberius, an inventor brought before the Emperor a goblet of glass which, when flung down upon the floor, instead of breaking, only bent, and was easily straightened again with a hammer. It was never safe to trust a despot of the Tiberius type. The Emperor had no fancy for all his subjects owning vases which could be crumpled up like handkerchiefs and carried in a pocket. Then history tells us that

he kept the vase and killed the inventor. Whether this is true, or only a mere fable, I do not know, but it is true that we have glass so tough that it cannot be broken. With the exception of some half-a-dozen towns, as for instance Smog, Elvedon and one or two more, our cities are built of malleable glass."

"Where is Smog?" I asked curiously.

"Oh, that is another name for London. I believe it was called London in your time, Sir Thomas. Then it was changed to Smog, and now it is again changed to London."

"Why was it called Smog?"

"Why, because the name was made up of two contractions, from smoke and fog. The first two letters of smoke and the last two of fog. Historians tell us that London was once a very dirty city. But, as I was saying, almost all our houses are built of glass, and furnished with articles of glass, even tables and chairs, which give it a very artistic appearance. Of course, at this present day we have a new process by which it is possible to roll blocks of glass to any thickness desired for building purposes. I cannot tell you rightly how it is done, but I believe in some way the process consists in heating glass until it is just about to soften, and then dipping it into a bath of oil at a lower temperature."

My attention had been so absorbed on the imposing architecture of a magnificent skyscraper and listening to the Professor's remarks, that I paid no attention to the street below. A confused clamour of shouting and vociferous cheering reached our ears.

We went to the side of the aerial stage and looked down, holding the rails. The moving stages had stopped, and the streets were packed with a dense throng of people. There was a clear space down the middle, the people on both sides being kept back by the **civi*, who lined the road on either side. The balconies and sides of the houses along the route were

* Similar to policemen of our day.

covered with flags and the most beautiful flowers that my eye had ever before seen.

"I wonder what is going on down there?" I inquired.

"A wedding I expect," returned the Professor casually, and walking back to the centre of the stage.

Faure-Fremiet and I leaned over the side and watched with interest the proceedings below. I listened intently.

"Sir Thomas for ever," shouted someone immediately below.

The Professor wheeled sharply round and came to where we were standing.

"Just slip below, Faure-Fremiet, and see what all this noise is about."

"Thou hast spoken, oh mighty man of learning, and I hasten to obey thy commands," said Faure-Fremiet with mock gravity, bowing and walking to the elevator.

He stepped inside, touched a spring, and disappeared in the twinkling of an eye; a long phrase to illustrate so short a space of time.

"Here he comes," cried a chorus of voices; evidently they were referring to Faure-Fremiet.

"That is not him," returned other voices in opposition.

The Professor turned and faced me.

"What a time the Historian is gone," he said.

Breathless, Faure-Fremiet at last stood beside me.

"What have you heard? What have you got to say?" asked the Professor quickly and rather impatiently.

"Oh, winds of heaven carry us from this lofty eminence, far from this maddening crowd," said Faure-Fremiet theatrically.

"Cease your foolish twaddle, knave, and tell us at once what you know."

"Well, it seems," began Faure-Fremiet, "that the people of Carron, and indeed of several towns, have found out that our friend, Sir Thomas, is here.

Every minute they are arriving from other towns by the cube and airship. They have found out by some means that Sir Thomas is going from here to the Hotel Solferino, and are going to give him a right loyal reception en route."

"This is a nuisance," said the Professor with a frown. "I am sure, Sir Thomas, that you do not wish to be pestered by those people," he said, pointing with his finger downward.

"They have got a carriage and some, what do you call it, hippopotamus; no, I mean hors de combat, to pull the carriage," said Faure-Fremiet.

"I presume you mean a horse," I said quickly, though I had been told that horses did not exist in the thirtieth century. "It would not be kind to make our escape from here," I said, "if all this is arranged on my account."

"Then you will face the music, as the ancients used to say?" said the Professor.

"Yes," I answered, "let us go down."

We all three stepped into the elevator, and the next minute reached the bottom and stepped out.

A thousand voices rent the air, such cheering as I had never before heard. I stepped into the street, Faure-Fremiet and the Professor walking behind me. There in front of us stood a most magnificent carriage, with six beautiful black horses.

An individual in a black morning coat approached, bald, dignified, amply whiskered, gently supercilious. Behind, around, were automaton flunkies in green and golden coats, red plush knickerbockers, with white stockings and powdered hair.

The black coated gentleman bowed.

"Sir Thomas Browne, I believe."

"The same," I answered.

"Follow me, sir."

I did as I was bid, and a moment later the emblazoned door of the carriage was thrown open to me and the black-coated gentleman bade me enter.

The Professor stepped in behind me, and Faure-Fremiet stepped lightly in after him ; the door closed gently, and we moved off.

A roar of acclamation greeted us from the concourse that filled the street from end to end, hats were waved, handkerchiefs fluttered upon the wind, the thunder of the applause rocked from house to house, and from balcony to balcony down the road.

I smiled and bowed my head to each fresh outburst of cheering, for I was cognizant that all this was done to honour me.

On and on we went, past the great thoroughfares blocked with human beings, all straining their necks forward to get a glimpse of me and trying to break through the lines of the *civi*.

"I cannot understand ; I thought you said there were no horses," I said.

"Neither have we," said the Professor, "the things that are drawing this carriage are mechanical, something like the automata ; no doubt constructed from the figure that appeared on your thought plate, Sir Thomas."

The carriage now stopped, the door was opened by the gentleman in black, and I saw that we had stopped at the main entrance of the Hotel Solferino—a beautiful palace of glass.

A wide flight of marble steps led to the entrance, which was crowded with ladies and gentleman. A little girl of about six detached herself from the others and came down the steps towards me. She was very beautiful, and dressed in white silk. She bowed prettily and said in a sweet, childish voice :

"Welcome, Sir Thomas, to the Hotel Solferino."

I was so touched by this pretty speech, that I bent and kissed the little maiden.

I noticed that the Professor and Faure-Fremiet were talking to a gentleman. As I came towards them, leading the little girl by the hand, the Professor turned to me and said :

"This is your *secretive*, an excellent man, Kovessi. Kovessi—Sir Thomas."

We both bowed understandingly.

The man I saw before me was strikingly handsome, about forty-five, tall, dark and typically Greek in features, with an alert, clean-cut face and wonderfully modelled chin. I learnt afterwards that he was a Japanese, and prided himself on being a descendant of a certain distinguished chemist who had invented a highly explosive powder. His knowledge of the language of my time was perfect, or rather it was perfectly colloquial, which is not the same thing. I found him as the Professor had said, an excellent man. He proved to be very useful to me, always near me to explain anything that I wished to know. He had been especially chosen by the Astronomer Royal for me, and for years before I had awakened from my sleep he had studied my language from some ancient manuscripts found in the museum.

I went up the steps, the ladies on either side kneeling on cushions as I passed, a thirtieth century way of honouring me, and I raised my hat in return.

The manager of the Hotel Solferino greeted me at the top—a short man with a short bushy beard.

I will not enter into the details of my stay at the Hotel Solferino. The Professor and Faure-Fremiet left me the next day, as previously arranged. Needless to say, I spent a very pleasant, and I may say a happy, time there.

CHAPTER XII.

AN AIRSHIP RIDE.

A FEW days afterwards, as I was walking in the beautiful gardens surrounding the hotel, Kovessi came out of the aerodrome and said :

"Your excellency, I have just been looking for you ; a unigram has just arrived from Baron Metternich requesting your Excellency to attend a banquet, which he intends to give to honour you."

"Who is Baron Metternich ?"

"One of the richest men of to-day," he answered, "a member of the Concentrated Food Trust, and the greatest shareholder in the Electric Cube Transmitter. I told him you were out at present," continued Kovessi, "and he said he would come to see you to-day."

That afternoon, as I sat in the garden lazily watching the water play from the glass fountain, a shadow crossed the ground. I looked up and saw a huge airship descending swiftly into the aerodrome. It had no sooner disappeared inside, when from the interior came a little wiry man with grey eyes, which gleamed out at me from under bushy eyebrows, which were iron grey. He came towards me and said :

"I believe I have the honour of standing before Sir Thomas Browne, the 20th century scientist, discoverer of the elixir of life."

"I am Sir Thomas," I assented.

"Let me introduce myself," he said ; "I am Baron Metternich."

"The gentleman, I think, of whom my *secretive* spoke this morning," I ventured to say.

"The same."

"Pray, be seated" I said, making room for him to sit beside me.

"I shall feel it a great honour, Sir Thomas, if you will condescend to come to a banquet which I have organised."

"Believe me, I feel very grateful to you," I said, "and I shall be more than pleased to come."

"Everything at this banquet," said the Baron, "will be conducted as much as possible in the twentieth century style. I have asked Faure-Fremiet and several other historians to help me in this respect."

We sat and talked for some time together, and then he departed in his airship.

That evening Kovessi read the following extract from the "paper."

"Next Friday there will be held in the palace of Baron Metternich, Germany, the most magnificent and elaborate dinner held during recent years. The chief feature of this dinner is that everything will be conducted in the twentieth century style, with, of course, a few exceptions. Several leading historians, amongst them Faure-Fremiet, will arrange the programme. This dinner is given by Baron Metternich to honour Sir Thomas Browne, the twentieth century scientist. No expense will be spared. It is estimated that the flowers alone will cost £683. The musical programme will cost something like £1,600, not to speak of other expenses. There will be over 1,000 guests—members of all nationalities. Count von Linden will also be present. They will wear the typical dresses of the twentieth century. After the banquet there will be a dance."

On the following evening, before that appointed for the banquet, Baron Metternich's airship came to fetch me. He did not come himself, but sent his aeronaut. Kovessi had thoughtfully provided me with my *habillement*, consisting of a dress suit and silk hat. He himself was attired in a similar dress.

This was the first time I had ever been in an airship. I went into the aerodrome with Kovessi, who was to accompany me. We stepped into the airship

—it was, as I said before, a huge one—in shape resembling a gigantic cigar, with several saloons running the entire length of the airship, beautifully fitted up.

I expressed a wish to see the machinery, which was in the first compartment. The aeronaut was completely enveloped in a suit of finely gauzed wire. This was to protect him against any electric shock.

Kovessi and I seated ourselves comfortably in a fixed thickly padded chair.

"Is all clear," said the aeronaut, "I am going to start the engine. Look out for the propeller."

With a quick obedience, not always to be found in machinery, the engine started, at the first turn, and then the great blades of the tractor commenced their revolutions, and the huge framework vibrated to the whirr and throb. He pulled a lever, and I saw through the glass sides of the saloon the roof of the aerodrome part in two and fall each side.

He touched a knob, and the airship moved upwards with a rushing sound. In our flight skywards I noticed what appeared to be a clock with numbers round; as we went up the hand of the indicator moved round, the operator watching it intently.

"For what purpose is that clock-like arrangement?" I inquired of Kovessi.

"That shows, your excellency, our elevation. To go to Germany it is necessary, or rather it is one of the rules of aerial travelling, to go at certain elevations when travelling to various parts of the earth. You see that," he said, getting up and stopping before an instrument which reposed under a thick glass case.

I nodded.

"By its aid one can detect the presence of any obstruction in the air long before it is visible to the eye."

The airship had now stopped, and remained suspended in the air. The operator released the lever, and the huge mass of shimmering metal, which composed the airship, now shot forward with remarkable

swiftness, with an uncanny motion reminiscent of the inert sweep of an albatross, throwing me back in my seat; Kovessi had taken the precaution of catching hold of a small rail. I must admit I felt extremely nervous. Just at that moment I heard a voice proceeding from the luxurious saloon, which said :

“ Few shall descend where many rise,
Their winding sheet shall be the skies.”

I turned quickly round expecting to see Faure-Fremiet come from within.

Kovessi evidently read my thoughts, for he said :

“ There is an unisophone inside, your Excellency.”

I speculated on accidents. If the slender wires that held us broke, where would our car be hurled ? Three species of death were perpetually haunting me : death from being flung to earth like a stone from a catapult, death from drowning, or death from starvation or distress in mid-air.

Down below all seemed vague and chaotic. A dizzy panorama of the glass houses, the people, the neighbouring suburbs, the shooting past of other flying machines, that is the mixed jargon of impressions which I experienced while being whirled through the air in the airship.

The earth seemed to unfold itself to our view like an immense and variegated map, the predominant colour of which was green in all its shades and tints. The size of the houses, mansions and sky-scrapers was so considerably diminished as to make them nothing so much as playthings. This was the effect produced by a microscopic projectile, which sounded a horn, very faintly, to attract our attention, and which seemed to creep along at a snail's pace, though doubtless going at the rate of three hundred miles an hour. What a lasting impression this microscopic neatness made on me.

“ What is that white puff I see down there, the smoke of a cigar ? ”

“ No, it is a cloud of mist,”

It must be one of the chief delights of an aeronaut to gaze on the familiar scenes of earth from the immense height of an airship. What earthly pleasure can compare with this? Free, calm, silent, roving through the vast and hospitable space where no human form can be. I despise every evil power, I can feel the pleasure of existence for the first time, for I am in full possession as on no other occasion, of perfect health of mind and body. I can pity those below, whom I can only faintly recognise by the gigantic works which appear not more dignified than ant-hills.

The sun was setting behind the purple horizon in our rear. The atmosphere was still quite clear around, though there was a thick haze underneath, through which we could occasionally see lights glimmering from the earth. We had attained a sufficient altitude to be only just able to hear voices from towns that we left behind us, and were enjoying the delicious calm and repose peculiar to aerial ascents.

We went back to the dining saloon in excellent spirits, where everything was in readiness for dinner, or rather supper. It seemed as if I were in one of the luxurious rooms on terra firma. There were no tabloids, but some light refreshments and dessert, which only appeared to disappear with an equal promptitude, and we quenched our thirst with some delicious non-intoxicating drink.

After supper Kovessi read to me some extracts from the "paper," and then we discussed the different topics.

Again we both went out on the staging round the car to see the last rays of the sun. Our longing gaze followed it behind the dark clouds in the horizon, whose edges it tipped with a glorious purple. Its last rays shone on us, and then there came a bluish-grey twilight. Suddenly we were enveloped in a dense fog.

We looked around about us. Everything had disappeared in the mist. The airship itself was no longer visible. We could see nothing except the ropes,

and these were only visible for a few feet above our heads. We were alone in the airship in an unfathomable vault.

We still proceeded, however, through the compact and terrible fog, which was so solid looking as to seem capable of being carved into forms with a knife.

The saloons were lighted up, but the windows were closed so that no light escaped. Supposing we were to collide with another airship, or crash into a projectile, the thought suddenly occurred to me. When I suggested this to Kovessi, he said :

"We are too high for the projectiles, and as for a collision with another airship, well, we have that instrument which detects the presence of another airship, even in the fog, long before we see it. Accidents are things of the old world, your Excellency."

Neither of us spoke again for some time, till Kovessi suddenly exclaimed.

"Look up, Excellency ! Look up !"

I raised my eyes to witness a most singular and electric phenomena. The silken envelope, for which I had looked in vain a few minutes before, had undergone a transformation, and presented a magnificent sight. It now looked as if coated with silver, and floating in a pale phosphorescent glimmer. All the ropes and cords seemed to be of new, bright and liquid silver, like mercury, caused by the mist, which had rested on them, becoming suddenly congealed. Two luminous arcs intervened between us in a sea of mother-of-pearl and opal, the lower one being the colour of red opal ochre, and the upper one orange. Both of them, blinding in their brilliancy, seemed about to embrace one another.

"How far are they off?" thought I to myself. "Can I touch them with my hand, or are they separated from me by vast space?"

"We are not capable of forming ideas of perspective floating as we are in the midst of such a glimmering splendour."

Kovessi's hair and moustache shone like the fur of a cat when it is electrified. Above and around us was nothing but thick fogs and enormous black clouds, whose ragged edges and back are relieved by a pale silver coating. They undulated ceaselessly to and fro, and either superseded by more formidable ones.

But the last ray of reflected light has died out and plunged into the chaos of dreadful forms. Monsters seemed to wish to approach us and to envelope us up in their dark embraces. One of them, on my right hand, looked like a deformed human arm in a menacing attitude, writhing its jagged top like a blind serpent feeling its way.

The vague monster had disappeared, but the momentary splendour, being followed by the original gloom, we plunged once more into a darkness that could be felt.

We went back to the saloon.

On examining the indicator we found that we had left South America far behind and were passing over the great Pacific Ocean.

Kovessi suggested that we should lie down on the lounges in the saloon and snatch a few hours' sleep.

"We shall be in Germany to-morrow," he said.

"What about the aeronaut?" I questioned.

"He will be all right. He has done this journey many times."

Kovessi laid down on a luxurious lounge and pulled a rug round him, while I choose an easy chair.

In the silence that followed came Faure-Fremiet's voice through the unisophone, saying in the thirtieth century language :

"The first that ever burst
Into the silent sea."

This was repeated several times, but it did not alarm me much, for I closed my eyes and was soon wrapped in sleep. Waking early next morning, I found I was alone in the saloon. I arose, shook myself,

and went outside, where I found Kovessi gazing over the side of the airship.

He turned as I approached and said :

“ I trust your Excellency has slept well.”

I made reply in the affirmative, and expressed the hope that he had done the same.

We could only just distinguish each other's features on the platform of the car, and still continued to advance in the direction of the light, which got clearer and clearer every minute. The vast stretch of ocean laid below, and I saw that the pace of the airship had greatly increased.

Suddenly, as if with a burst of joy, a flash of light darts through the azure vault. It is a sign, re-echoed from the most distant horizons, of the ushering of day in all its splendours.

I could see the golden glory from the right pulsating through the opalescent haze, the yellow and rose penetrating the violet. As the morning went by, we reached the Continent and glided over an infinite panorama of plains, towns, lakes, rivers and forests. A most entrancing sight was spread out for our eyes to feast on. Everything seemed to rejoice under the benign influence of the sun's rays.

Something bright flashes on the horizon ; now it has assumed the shape of a mansion. We can see now that it is in the centre of big gardens. We are immediately over it now, and dropping slowly on the green.

I walked with Kovessi across the lawn, gay with flowers, where I was cordially greeted by Baron Metternich, who had been waiting for the airship to arrive.

CHAPTER XIII.

A WONDERFUL DINNER.

HIS palace was indeed the most beautiful one I had yet seen, built entirely of pearly glass, which shone like a mirror in the sunlight, and bathing the flowers and flags in light. Everywhere there were decorations, and the arches and columns around were literally covered with flags and festoons of green.

We made our way down a beautiful marble staircase, which was profusely decorated with a kind of rambler rose, arranged in arches. At the bottom stood a lady dressed in a gown of silver-satin mousseline, with diamond embroideries and a velvet train, and a blazing wealth of precious stones. She was introduced to me as the hostess, Baroness Metternich.

I passed with my host down a long wide passage with flowers on each side of the wall. We at length emerged into a big room, where a great number of guests had already assembled, and who were conversing, with the help of their thought plates. How familiar it seemed to see gentlemen in dress suits and ladies in low-necked dresses.

All the scientists were dressed in handsome uniforms, which made a bright touch of colour among the sombre clothing of the other gentlemen. Then I saw the tall figure of the Astronomer Royal coming towards me, dressed like a Sikh warrior preparing for immediate and bloodthirsty warfare—the figure of a man, on whom people were beginning to press and converge, a figure that smiled, bowed, stopped continually to shake hands and receive greetings, and made a slow progress towards me. He extended his hands and introduced me to his daughter, the Lady Zoe, a beautiful little vision in white, who had been

standing near me, but whom I had not previously noticed. In her evening attire, and by the artificial light, she looked positively beautiful. She could not be more than eighteen years old. She was as lovely as an angel; indeed, she far excelled in the same style the loveliest picture of an angel I had ever seen delineated. Feathery golden hair, limpid blue eyes, and a form the perfection of grace.

I must say that I was greatly struck by her beauty. I should never have believed that such beauty existed.

"There is nothing," said Dryden, "that makes its way more directly to the soul than beauty, which immediately diffuses a secret satisfaction and complacency through the imagination and gives a finishing to everything that is great or uncommon. The very discovery of it strikes the mind with an inward joy and spreads a cheerfulness and delight through all its faculties."

I thought of the words of Milton :

"Yet when I approach
Her loveliness so absolute it seems
And in herself complete so well to know
Her own, that which she will to do or say
Seems wisest, virtuous, discreetest, best."

And Byron :

"Her overpowering presence made me feel
It would not be idolatry to kneel ;
We gaze and turn away and know not why
Dazzled and drunk with beauty till the heart
Reels with its fullness."

Zoe stretched out her hand to me without a word. Taking it in the tips of my fingers I bent low over it, and touched it ceremoniously with my lips.

"This lady is very fond of history," said my host, speaking of the Lady Zoe. "I shall place her under your care, Sir Thomas."

"I shall be delighted to take charge of the lady," I replied gallantly.

She took my proffered arm, and we mingled with the other guests, who were making their way to the dining hall, from which came the clinking and confused clamour of many voices.

"Our banquet hall is right under a large lake," said the little figure by my side.

"Really, and is there any danger of us becoming submerged?" I said laughing.

"I think not, Sir Thomas," she replied with a smile. "At least I hope that such an event will not happen."

By this time we had reached the banquet hall, and I paused for a minute on the threshold to look on a scene of such wonderful magnificence that words almost fail to describe it. I was dazed for a moment by the dazzlingly flashed scintillations of the multitude and gems under the bright lights, the white linen, the black suits, gorgeous uniforms and brilliant dresses, and the tables, on which were most original decorations in the form of miniature trees rising from a bank of what appeared to be carnations and pink pelargoniums. The vast chamber in which the banquet was spread was reserved specially for grand occasions. There was a certain resemblance to those I have read of in the luxurious age of the Roman Empire.

Each of the numerous tables was appropriated to eight guests. It was considered that beyond that number conversation languishes. On the table had been placed bottles of wine labelled "*vin ordinaire*," in reality a non-intoxicating drink, something like *mas de la ville* wine. It was a light adolescent drink that touched the palate cleanly and sharply, and yet left a lingering sense of flavour and perfume.

Automata dressed in handsome liveries representing footmen glided about the room with remarkable alacrity, stopping to perform some service as if they were human.

On each of the four walls of the room I saw a large picture, which took up the whole side.

They now commenced to move, and I at once knew

that there were four unisophones concealed in each corner.

As I slowly chewed my tabloid I could look upon a street in London and watch people gliding up and down upon the sliding stages. There was no quivering or flickering of the pictures as it was usual to see with the bioscope of my day, even with the best results that could be attained from living pictures. The pictures that I saw before me were so very clear and life-like and I could scarcely believe that they were the representations of things that were now actually happening in distant parts of the earth.

On my right side I could see a bird's eye view of the city of Carron. I could pick out the aerial stage upon which I stood not so very long ago.

It was a wonderful dinner indeed. I now turned my attention to the guests.

The Professor of Physics talked little, and what he said failed to add to the gaiety of the company. He seemed to care more for assuaging his enormous appetite than the refined pleasures of conversation.

The chief talker was Faure-Fremiet, who had a wonderful flow of spirits, and who seemed to regard life as a series of huge jokes. Sitting beside him and almost facing me sat a lady attired in a gorgeous dress of white satin *charmeuse*, a soft shimmering fabric beautifully embroidered. Her features were more than merely piquant; they were beautifully and delicately modelled. Well made and well dressed, she sat in self possession and quiet dignity, proud in the knowledge of the same, and yet cold, cold as the coldest marble. She was known as *de Zara*.

To the student of human nature there was a great deal to study from the guests that were ranged round the tables, but to my thinking the most interesting of the company was a gentleman, by name Van Dyemen. For the most part he remained silent, listening and smiling like some humorous old spinx, who, despising mankind, could not help being amused by it. Occasion-

ally he would stroke his chin, lean forward, and deliver himself elaborately of some epigrammatic cynicism, and then he would sip his wine and lean back again with a contented smile, apparently well satisfied with his effort.

The person that struck me most was Count von Linden, who sat at another table near under a canopy of flowers. He helped the flow of conversation in a spasmodic and perfunctory way, but his thoughts seemed to be elsewhere, and his utterances insincere. His face was strangely cold and stern, and there was a look in his deep cavernous black eyes as though he was staring into another world. It seemed as if the company and the surroundings bored him, for when he answered he spoke quickly, and with some impatience to boot. I wondered to myself if his set face had anything to do with the Martian signals. Strange he keeps them a secret, I thought.

It was well that none of us knew the thoughts that were revolving through this great man's mind. If we could have known we should none of us have attempted to escape from the room had the roof given way and the place been flooded. We could have sat still and allowed ourselves to be drowned, and felt not the slightest twinge of sorrow. Better that we did not know how the sword of Damocles was threatening to fall on us.

But all secret forebodings were immediately dispelled from my mind on hearing from some invisible orchestra such music that I had never before heard the like.

Now I flatter myself on being a connoisseur of good music. I have listened to the best music of my time, but I have never before heard music to approach this. The piece played was Wagner's "Tannhauser." Fancy hearing this played in the thirtieth century. I was transported into the highest delights of my own vivid imagination, until at the last note I awoke suddenly like some opium smoker from his golden land of dreams.

Then after some minutes came the first bar of "Soldiers' Chorus" from Faust."

The Lady Zoe put forth a well-shaped and carefully manicured hand and helped herself to a fruit resembling one of our old peaches.

"I like the 'Soldiers' Chorus' from 'Faust,' she said sweetly, "because it is about men who fight, and when women begin to think about men who fight they forget themselves. Did the soldiers that lived in your time kill their enemies in war? Faure-Fremiet says so, but I think he is rather given to exaggeration."

"He is quite right," I replied.

"If I had been alive in your time, Sir Thomas, I should have put a stop to war," declared an old gentleman with a large head emphatically, leaning forward and overhearing our conversation, "I say it's devil's play."

"I am afraid your protestations would have been of no avail," I rejoined. "You must understand that things were different then."

"Ah—um," said he, and then, as if he realized that a lack of firmness would injure irretrievably his prestige with us, he murmured "um" again.

"How could men be so wicked as to deliberately murder each other?" said the lady at my side, with a note of horror in her tone.

"It was not the fault of the men; they were obliged to fight. Perhaps a cabinet of Ministers would meet before lunch and decide on a war. One Cabinet which did so killed probably about ten thousand people per head."

"And did it interfere with their sleep?"

"Not in the least."

"How glad I am that I did not live in such a barbaric time," she observed. "But I do so like to hear of those quaint adventurous, half-civilized days of the twentieth century, Sir Thomas. Curious times they were, with their old-fashioned smutty railways

and puffing old iron trains, and their rum little houses. I like to read the ancient naval lore," she went on—"of stories of the Spanish Main, and of the buccaneers with pistols in their belts. Didn't the belts have very large buckles?" she inquired, simply.

"Quite possibly," I answered, amused.

The music, which had stopped, now commenced again.

"Where is the music?" I asked.

She looked at me, as if surprised that I should have asked the question.

"Ah, I forgot," she said, suddenly. "Of course, all our music comes from Aubonne."

Now I did not know whether Aubonne was a thirtieth century word which meant an adjoining room or something of that sort.

"I think you said Aubonne," I remarked. "Where is it?"

Her answer gave me quite a shock.

"Aubonne is the chief city of Italy. It stands on the site where once stood a city called Florence, I believe. Italy was in olden times the country of music and art."

"How does it reach here?" I asked incredulously.

"By wireless electricity. For a small sum any person can have the music installed in their homes. Instead of donning evening dress and going out to hear a noted pianist, all a man needs do is to settle back comfortably in his easy chair, turn a switch, and the pianist will come to him, so to speak. The woman who loves a grand concert for music alone, and loathes the gala dress of such an occasion, can slip into her easiest robe, take up her book or embroidery, press a button, and in a second the room will be flooded with music."

I reflected how useful such an invention would have been to the suburban resident of my time. How he would have appreciated hearing a concert in his own home, where he would have no uneasy feeling

that he must pay for his fun by a wearisome ride on the trams or motor 'buses after the performance. What a pleasure it would have been to him not to endure the inconveniences of a Paderewski crush.

It was as if a talking machine was concealed in a bank of greenery, for no one seemed to suspect its presence, until from a bower of flowers resembling roses Patti's voice suddenly rang out in "*Poi che sapete,*" and Melba trilled the valse aria from "*Romeo and Juliet,*" followed by Caruso, who pealed out in "*Di quella pira.*"

"Is that done . . . ?"

"Yes, by the wireless," broke in the Lady Zoe.

I do not remember ever reading a more brilliant description of the magic of music than that written by Heinrich Heine, in which he describes the wonderful panorama brought before his closed eyes as he listened to the robust execution of the great Rubenstein. I lay back for a moment and closed my eyes. I could almost imagine myself sitting and listening to the famous singers at a concert I well remember attending in the twentieth century. And here was I, a thousand years later, listening to the same musicians or their voices. Surely I must be dreaming.

I opened my eyes suddenly and gave a violent start, striking my glass so that some of the yellow liquid trickled down on the tablecloth. Were my senses deceiving me? Were these some of those strange hypnotic forces at work?

I heard a woman singing: I have heard that beautiful mezzo-soprano voice somewhere before. Great Heavens, it sounds like Lady Browne, my wife's voice! Impossible!

"Why, what is the matter, Sir Thomas?" asked Zoe. "You looked as if you were ill."

"It is nothing," I said, feeling very hot. "Who is that singing now?"

She replied in the negative and added:

"I believe that the music you hear, Sir Thomas,

is produced by a machine something like an old phonograph; but, of course, a more modern invention. Faure-Fremiet found some old plates in the museum, which he declared were a thousand years old, and would suit the occasion, though I think he must have made a mistake."

"He was right," I said. "I have heard those voices before in my time."

I found out a little later that the phonographic record—for such it was that had startled me—bore the letters "L.H.B." I felt convinced that it stood for Lady Helen Browne, for I remember when I come to think of it, that she once sang into a phonograph. The event stands quite clearly in my mind, because I can well recall the letter inviting her to sing into the machine.

I soon regained my self-possession, and listened with interest to the speeches and toasts that were proposed on my behalf, and to which I responded.

Later in the evening came the dance.

CHAPTER XIV.

THE DANCE.

My host touched something in the wall behind him, and the tables, with the remains of the dinner, sank through the floor. He twisted a knob, and the room was transformed into a fairy Italian garden of the sixteenth century. There were pagodas covered with grape vines, at least so they looked to me, from which hung huge bunches of fruit resembling grapes, but considerably larger. Then a raised terrace of white stone sprung up around the ballroom, where the matrons sat to watch the dancing of the younger folk. One end of the room was transformed into an orange grove, where real trees laden with real fruit invited cosy tête-à-têtes beneath their dusky shade. Beautiful alabaster fountains gushed perfumed waters, and mechanical flute-voiced birds sang everywhere. It was as if other days and other lands had been brought to us by some magic hand.

The women were as well dressed as at any function I have ever attended in London in my time, and the jewellery displayed would have almost sufficed materially to reduce the old National Debt. Add to this the invisible and excellent band, a brilliant but soft scheme of lighting, and an exceptionally high standard of dancing, you will pardon the mildly voluptuous thrill with which I regarded the refined animation of the scene.

One thing struck me as being very singular, and which agreeably entertained me, was the bashful way which a young man assumed when a lady sometimes spoke to him. He would answer with downcast eyes and blushing cheeks and appear demure and shy.

Kovessi stood near me, and I could hear a member of the fair sex speaking to him in a way that sounded quite unbecoming to her modesty. Not far from where I stood the Professor of Physics was cleverly evading professions of attachment from an old lady. How very immodest on the part of the fair sex, I reflected. It seemed as if the lady was the wooing party, and the gentleman the coy and reluctant one.

I noticed the Astronomer Royal leaning his broad back against a gilded pilaster, his eyes following the dancers with a smile that looked to me cynical. I saw the Professor of Physics, who had managed to slip away from the old lady, attired in faultless evening dress, with an immaculate white waistcoat, conducting a splendid young woman with the shoulders of a goddess and an epoch-making ball dress to a thickly flowered alcove. He was, by the way, the only scientist in evening dress.

I turned to Zoe, who stood beside me. She was transfixed into a beautiful gracious woman, her eyes sparkled, her red lips parted in a beautiful smile, as she watched the dancers with a look of quiet enjoyment on her clear-cut features.

"Are you engaged for this dance?" I asked.

"My programme speaks for itself," she replied, handing me an unmarked—I will call it card.

"May I have the pleasure?"

"Certainly."

Never is woman so graceful and so alluring as when she dances. The mobility of her physiognomy, the arch smile, the radiant look, the graceful lines of her bosom and limb, the eloquent feet in their airy movements, all concord to make woman at that time a marvel of beauty. Zoe was an excellent dancer, and we glided on and on across the perfect floor with the soft strains of the hidden music rising and falling on our ears, blended with fragments of the sweet-toned thirtieth century speech. Above us, from out of the vast painted ceiling, glittering lustres hung by chains of bronze and

gold, casting glimmering lights down upon the gay crowd below, marking out the brilliant dresses and the gorgeous uniforms of the scientists against the smooth marble-like columns.

Happening to glance at Faure-Fremiet, I saw that he was greatly enjoying the fun, and throwing his legs about in a manner that not a little amused me, but which seemed to cause his partner some uneasiness and those near him. One moment he would spin round like a top, and then give three or four steps forward. Then somehow or another he must have slipped, for above the sound of the music and the steps of the dancers rose a crash. I looked round again to see him completely buried in the palms and the greenery at one end of the room, his legs alone showing. His companion managed to regain her feet. Just at that moment, too, the Professor of Physics came round with an unusual rush, his face quite warm with his exertions. Then catching his foot in Faure-Fremiet's protruding legs, he fell with considerable force across a palm, smashing a handsome vase full of flowers. His companion saved herself from falling by disengaging herself. The music suddenly ceased, and everyone made their way to the confused heap of palms to rescue the unfortunate gentlemen.

The Professor rose without assistance, his hitherto immaculate white waistcoat now wet and of a greenish colour. He did not seem hurt, neither did Faure-Fremiet, who said ruefully, as he stood upon his legs again :

"I cannot say that I approve of dancing. I have danced the soles of my feet to a blister, and my collar is likened unto a wilted rag."

He could not have been in earnest, for later I perceived him in another dance.

I asked Zoe if she would like some refreshments.

She replied in the affirmative, with one of her sweetest smiles, and I led her to the region of lemonade and strawberry ices. At least that is what it

appeared to me to be in appearance, but not in taste. Rather a pleasanter flavour, I thought.

"Are you fond of dancing, Sir Thomas?" asked Zoe, as I handed her some frozen abomination.

"That depends whether I am fortunate enough to secure such an excellent partner as yourself," I answered.

"You flatter me," she murmured, shyly, a rosy blush overspreading her smooth and shapely neck.

"Not at all, dear lady, I am not given to flattery."

"The music has started again, so let us go back."

We started back to the ballroom, where a big square dance was in progress.

"The cotillion," whispered my companion.

Suddenly the dancers broke up into small isolated groups. Then, before I was aware what was happening, a young lady rushed towards me and thrust something into my hand. The upper part of her face was covered by a mask, so I could not see who she was.

"I beg to offer you a present," she said in a voice that struck me as being singularly like one of the ladies to whom I had been introduced.

Considerably mystified, I looked at the object she had forced upon me. It was a peculiar shaped bottle like a small scent flask.

"I am much obliged," I said, quite at a loss to account for the unexpected generosity.

"Now you must dance the next dance with me," she said. "It is hard on you, I know, but you must conform to the laws of the cotillion."

"I begin to comprehend," I said. "The ladies have presents given them which they bestow on the men they wish to dance with."

"That is just it, Sir Thomas."

She was not a very beautiful little dancer. Indeed, she would have fallen several times had I not kept her up. Now and again she would apparently glide along the floor, not unlike the movements of the automata. I was a little mystified at this at first, but concluded

that as dancing was, until to-night, an unknown achievement amongst the people of the new-world, it was not much to be surprised at. Occasionally I looked round the room and noticed that everyone seemed to be regarding us with some interest. Many were smiling strangely, including the other dancers, and even a half-smile flitted perpetually around the stern lips of the Astronomer Royal. I wondered at this. As for my partner, she did not seem to take any notice of the other occupants of the ballroom, except the Professor of Physics, who was standing on a raised terrace round the room, and waving his hand as if directing the hidden band. Now and again she would glance at him and appear to smile. Suddenly she fell lifeless in my arms, as though in a swoon. Perhaps it was the heat, although the room did not seem too warm to me. I laid her gently on the ground, and called for some water, removing the mask from her face.

The Professor of Physics stepped down to where I was kneeling by the prostrate form on the ground, and said mysteriously :

"Our automata do not require food and drink, Sir Thomas."

"Your remark calls for an explanation," I replied rather severely, at his indifference to restore the inert figure by my side to animation.

"Well, you see, Sir Thomas, you have been dancing with an automaton, which requires no water when it falls down. You simply make a horizontal pass over a fallen automaton like this," he said, suiting the action to his words.

The figure on the ground turned over very slowly, and then, as if completely revived, stepped brightly into a standing position.

"Then you bring your arms up to your sides," he continued, "finger tips outwards, and thrust your arms out to their fullest extent. The result is——" and here he made a demonstrative movement of his hands, which caused the automaton dancer to skim

rapidly along the floor and pass out of the ball-room.

"I beg to apologise, Sir Thomas, for this deceptive proceeding. I accept the whole blame. If I have hurt your feelings I am truly sorry, but I thought perhaps you would note the deception when the automaton came over and invited you to dance. I did not imagine that things would have gone on as they did."

At first I was inclined to be annoyed, but the genuine tones of the Professor removed such thoughts. I saw that, after all, it was only meant as a good natured joke, so I replied :

"I am not offended, but the automaton was so cleverly constructed that I had no conception of the fraud. How is it, then, that it danced so well, and spoke ; yes, I could swear it spoke, I did not know the automaton could talk, or perhaps I should not have been so easily deceived."

"To answer your first question, I stood on the raised terrace and directed the movements of the automaton with my hands. I followed your movements as well as I could, but sometimes you would take a different step ; that is the reason why the automaton appeared to resist you at times. The waves of magnetic force were, however, not very great, but that you could sway the automaton. Then to answer your other question, why the automaton spoke ; you must understand that they all cannot talk. But some of the best of them are so constructed that they can repeat a message verbatim. To be explanatory, it is done in much the same way as the ancients used to do with a toy they named the phonograph. But the automaton you danced with was not constructed in this way. It did not speak at all."

"Then how was it done ?" I asked, with a stare of incredulity.

"Well, I drew one of the ladies into my scheme. She was unwilling at first, but afterwards consented."

"That does not explain the reason why the automaton spoke," I ventured to remark.

"No, of course not," he answered, in an apologetic manner. "It was done by *biczic*—I think the ancients called it ventriloquism, though of course it is an art which is far in advance of ventriloquism, because, for instance, a man can control his voice so that he can speak to a person some miles away, and make his voice appear to come from an opposite direction. And this he can do by almost speaking in a whisper. I beg to offer a thousand pardons if I have offended you, Sir Thomas."

"Do not mention it," I responded, "but once I should not have believed that I could be deceived by a mass of shimmering metal and a ventriloquial voice."

CHAPTER XV.

A PROPOSAL.

JUST at this moment I felt a gentle touch on my arm. I looked round and saw de Zara, another lady to whom I had previously been introduced. "If you will accompany me to a secluded spot, I will tell you something that I wish you to know," she said quietly.

We walked in silence to an unoccupied settee in a palm-decorated recess. A tiny fountain set up its glittering whip of water from a marble pool, on which flowers resembling our old water-lilies were floating, while tiny automatic iridescent fish swam slowly round their roots. There was a fragrance in this pleasant remote spot, the perfume of the exotic flowers. Concealed electric lights shed their radiance upon fern, flowers and sparkling water. It was just the place where matters of import might be unfolded.

Neither of us spoke for some moments, and then I ventured to say at length :

"I believe you wished to speak to me."

She nodded her head slightly.

"I wish to discuss with you, if you permit, a question of extreme delicacy," she proceeded, looking round as if to see that we were alone, and drawing a little nearer to me.

"Indeed," I replied, "what is it?"

"Can you define the word 'love' for me?"

"Yes," I answered rather astonished at the question. "At least I will try. To love," I began, "is to regard with affection. To be in love, to be tenderly attached. Love is an affectionate, devoted attachment, especially that passionate all-absorbing form of it when the object is one of the opposite sex.

This is what the people of the twentieth century would have called love."

"How delicious," she commented. "It expresses my sentiments perfectly towards a certain gentleman who is present here to-night."

I at once decided in my mind that she spoke of Faure-Fremiet, but said aloud:

"Pardon my curiosity, but may I be favoured by knowing who this person is?"

She perceptibly hesitated, as if deliberating whether or not she should tell me, while a deep blush overspread her face. As I spoke she knelt and took my hand. With a convulsive effort her lips moved, and I caught the words:

"It is yourself."

Could any man be placed in a more awkward position. I was so completely surprised that I almost doubted if I had heard aright.

"Dare I read your silence . . . ? You love me. . . . Oh, speak, dear one."

"I do not know how to answer you," I stammered, confused, while I was conscious that my face had reddened. "It seems so strange that you should have made this proposition."

"Why do you say strange?" she said, looking up, and still holding my hand. "There is nothing peculiar in a woman making a declaration of her love to the man of her choice. Do you suppose that a woman would conceal a sentiment that it elevates her to feel?"

"I don't agree with you," I responded, embarrassed. "In my time it would have been considered very indecorous for a lady to propose; the gentleman spoke first."

"What a strange reversal of the laws of nature!" she said, with a quick, questioning glance. "Now the lady has the privilege to propose first. She would consider that a gentleman had audaciously infringed on the rights of her sex if he was to propose. And she

would betray her dignity if she allowed herself to listen to him."

The light of understanding dawned suddenly upon me. I now comprehended the looks and speeches that had passed between the younger people during the evening, and which had puzzled me.

Then looking into her eyes I said :

"I hope you will forgive me for speaking as I did."

"There is nothing to forgive," she said softly. "Then you do love me?" Her face lighted up with some enthusiasm.

"We will fly away together to my palace when you wish. I am strong enough to bear you on my wings, or we can use my airship, which is here to-night. I am premature perhaps," she murmured; "may I dare to hope that you will consider my proposal? I am willing to wait."

After a long and embarrassed pause, I said in the softest tones I could command, and pressing respectfully my lips on her hand :

"Words fail to say how deeply I am touched. I am sorry to pain you, but I cannot think of you otherwise than with feelings of respect and reverence."

"You are cruel," she replied sadly. "Is there anyone else? Pardon my question."

"No, there is no one."

"Then why refuse me? Listen. I have position and wealth—everything you may wish."

"That will not influence me in the least," I replied, "but while I thus frankly and decidedly decline your offer, believe me, I am not insensible to the high honour which the preference of such a person as yourself confers upon me."

"Let us forget this scene," I said, in a tone as seductively conciliating as possible. "Let me hope that you will henceforth encourage no other sentiment towards me than esteem and a continuance of that approbation of my humble opinion which you

have already expressed to my advantage and gratification."

"Truly a gallant speech, sire," she said, darting me a tender reproachful glance. "But think again, ere you decide finally what an offer such as mine means. There are many who would do much to receive such a proposal."

"By refusing this offer you offend me and insult me. In this age no man can insult a woman more than by refusing her suit, that is why many do not propose, for fear of being rejected."

"Whatever the rules of etiquette are in this age, nothing is farther from my thoughts than to treat you with contempt," I said hastily. "I do not deserve the love of a lady as brilliant and so learned as yourself. Try and forget me."

She released my hand, rose to her feet, and turned her face away as if to conceal her emotions.

Then she walked away a little distance, and paused as if impelled by a new thought. She returned to my side, and said in a voice which to me sounded cynical:

"I will not think of molesting you in future with idle importunity and persecution after your mind is once firmly spoken to a proposal that does not suit you."

For a moment she looked me full in the face, and I met her glance without a shadow of weakening.

If I anticipated a culminating burst of tears I was wrong.

There was a hardening of her expression, and her eyes glinted with anger.

"Even now you may change your mind. I will make you love me."

The words came from her in a hot stream of reckless passion, which far outvied her erstwhile amatory address. I arose from my seat and stood facing her:

"My feelings will undergo no change," I remarked coolly. "I am sorry that I cannot persuade you to believe me."

She drew herself up haughtily, with an indignant light in her eyes, her cheeks incarnadine.

"Perhaps one day you will think differently," she said in a freezing tone; "till then, farewell."

She bowed her head stiffly, and then left me.

I hesitated for a moment, undecided how to act, then seeing a long flight of stone steps near, I ascended, not caring much where they led me.

Reaching the top, I perceived a long glass corridor, through which I made my way, and eventually arrived on a balcony passing round the palace. In the distance I could discern the bright lights from several cities. Looking down, I saw many of the guests, beneath a galaxy of coloured electric lights, talking together in groups or walking about.

Garlands of electrically lighted flowers lined the beautiful avenue leading to a large lake, beneath the clear water of which, I concluded, was the ballroom. No conception of fairyland could have been more beautiful.

Alone with my thoughts I meditated on the crowded incidents of the evening, and became a prey to what novelists call mixed emotions. In the first place I was transported into the seventh heaven of delight by the honour that had been paid to me at the dinner and ball.

Then the proposal I had received from de Zara. I felt flattered, but I would have preferred that it had not been made to me.

CHAPTER XVI.

THE LADY ZOE.

My soliloquy was sharply interrupted at this point by the sound of a stifled but unmistakable sob, almost at my elbow. I wheeled quickly about and gazed in the direction from whence it came. The overhanging eaves of the piazza and the screen of some kind of vine created a dense shadow at that point ; but my eyes could now make out there what had hitherto escaped me, the huddled figure of a woman, bent over in an attitude of evident woe.

I hesitated a moment, and then stepped swiftly forward.

"Pardon me," I said, "I have no wish to intrude, but I cannot help seeing that you are in trouble, and if I can aid you in any way I beg that you command me."

The woman had started up in agitation when I first addressed her, and had turned as if to flee., but the genuine sympathy, I suppose, in my tone, apparently arrested her attention.

Then I perceived that it was the Lady Zoe. For her part she stood irresolute.

"Can I not share your trouble," I said tenderly, "and help you? I shall be honoured if I can do you any service, however slight."

Again a sob rose in her throat, and her eyes filled with tears. I could see that the little hand resting upon the balcony was perfect in its shape and beauty.

For the first time I realised that I loved this woman, loved her not with an ordinary selfish passionate love, but with some strange and wonderful feeling, that I can hardly express. It seemed to have come and

passed through my whole being with my rejuvenescence.

It was indeed all I could do to resist taking her into my arms and attempting to comfort her. She looked so bewitching in her grief.

Perhaps she saw what was in my mind, and might have discerned it in the tone of my voice and the look of my eyes. There shivered over her pure countenance for a single moment an almost imperceptible shade of virginal embarrassment. Afterwards I knew that she had read some of my thoughts. Fairest and noblest of all Earth's maidens, what a fate has been ours. Ten centuries, as men count time, divided us; and yet—but I must not digress.

"You would think me very foolish, Sir Thomas, if I told you the reason of my grief. Perhaps I am too sensitive."

"I should not think you foolish, for I do not think that you would look so unhappy without some good reason."

"It is so nice to have one to sympathize with me," she said with a sob, "that I feel tempted to tell you my secret. But please do not laugh at me when I tell you what is worrying me, Sir Thomas."

"I should not think of it," I replied.

"Did you notice my father to-night? Did anything strike you about him?"

"Yes," I said quickly. "He looked as if he had some great trouble on his mind, I thought. I felt sorry for him, and put it down that he had been so worried of late by the news service."

She grasped my arm eagerly. "Then you did notice it?" she said.

"Do you think that your father's troubled look had anything to do with the signals from Mars?" I suggested.

"I do not think, I am sure of it," she answered.

"Well, it seems strange," I commented. "There seems to be some mystery about it that no one can

fathom. Do you really think that your father is cognisant of the interpretation of the messages from the Martian planet ? ”

“ Assuredly, and that is what is worrying him. Just before you came on the balcony, Sir Thomas, my father was here. I asked what was troubling him and why he looked so vexed to-night.”

“ What did he say ? ”

She burst into tears at my question, and I did my best to soothe her. At length she became a little calm again, and I again put my last question to her.

“ He spoke hastily,” she answered in a voice broken by sobs, “ and unkindly. He has never spoken to me like it before, never. He loves me devotedly, and I am at a loss to understand why he should have answered me so sharply.”

“ Have you any inkling of this mystery ? ”

“ None. I can offer no explanation whatever, but I feel somehow that it is something terrible.”

“ Why ? ”

“ Because the other night, the one before last, I heard a peculiar noise. I lay shaking for some moments in a state of terror, then summoning up courage, I hastily arose, put on my dressing-gown, and made my way to my maid’s room. She slept in another part of the house, and to get at her room it was necessary for me to pass through my father’s laboratory.

“ The door was slightly ajar, and although it was past midnight a light came from within. I pushed the door open quietly, and stood behind a thick curtain inside, where I could see, without being seen myself, every part of the room. My father sat against a table, his face buried in his arms. He presently looked up, and I shall never forget the expression on his face. It was very white and hard, so that it startled me. It was as if he was gazing on some terrible scene and shaking like a leaf all the while. I was so frightened that I could not move. He then got up

from his chair and paced the room for some little time, and then——”

She glanced round.

“Are we perceived?”

“No, I think not,” I said; “but let us move a little nearer to the shade in case. And then what did you see?” I asked, with keen interest.

“He went to a shelf,” she continued, “and took down a glass and a small phial. I knew intuitively what it was—*karvasene*, a poison with the deadliest properties; one tiny drop is enough to completely paralyze a man. He poured out half the contents of the phial, and held it to the light, and then poured out a little more. Would he? Was he going to swallow it? My brain reeled at the thought. I had to cling to the wall for support. I could not speak or move from the place where I was standing, but remained glued to the spot.”

“He raised the glass as if to drink it, and as if ashamed of what he was going to do he threw the glass to the floor, shattering it into a thousand pieces.

“I do not know how it was in your time, Sir Thomas, but now-a-days it is a very great and unpardonable crime to commit self-murder, or, as the ancients would have called it, suicide. In your day, when the world was full of misery and evil, there was some excuse, but to attempt such an act to-day is utterly wrong, and for my father to think of such a thing, it seems too terrible to think about.

“Again you must understand that death in all ages and in any form was repellant to man, but in these days this fear is doubly increased. You look surprised, but I tell you why death strikes more fear in our minds than it did to the people of the old world.

“The chief reason is, I think, because we are able to evade it for a long time by the elixir of life, so that when it really does come we are afraid of it.

“Then again, there are not so many people who die now like they did formerly, from the ravages of

disease, wars and famines. Therefore, when a person to-day tries to end his own life he must be actuated from some purpose by no means trifling. I wish, oh! I wish I could find out what prompted my father to think of taking his own life. If I knew the worst I might be able to bear it, but this anxiety—this suspense is killing me."

She sank down into a seat near and burst into wild weeping, covering her face with her hands, while her body was convulsed with sobs.

"Please don't cry, don't, I implore you," I said, drawing her gently to her feet. "I cannot bear to see you cry, it grieves me. Try and calm yourself, or you will be ill."

"What is the secret?" I asked myself. "Why is the Astronomer Royal so worried?"

I remember that at the time it did not somehow seem so serious as it appeared. I little thought then that in the near future it would be my painful duty to tell this beautiful girl the cause of her parent's strange behaviour, a subject from which any man might recoil with fear. Happily I had no premonition of what was going to happen, how should I?

I passed my arm tenderly round her and drew her near me, and tried to comfort her as I would a child.

"I have it!" I said presently, starting at the idea. "Could not one of your psychological savants read your father's mind unknown to him by telepathy or cerebral radiation, or something akin to these?"

She looked up into my face and smiled feebly through her tears.

"What you suggest is impossible," she said, her voice growing calmer. "No one knows more than my father how to control at will his mental powers, so that his thoughts cannot be read."

"Besides, he uses certain forces by which he can keep at a distance any person who may try to seek out the thoughts of his mind. There are but few who command this power.

"It would be as well trying to walk through a thick glass wall, as attempting to enter my father's house if he did not wish it, even were every door and window open. It sometimes frightens me how he can by merely looking at you, render you unable to move hand or foot, just as though you were paralyzed completely. We must, then dismiss your suggestion."

"Have you questioned your father?" I asked suddenly.

"Yes."

"What did he say?"

"He said, 'Child, I will excuse you this time, but I forbid you to interrogate me again on the subject in future, or I shall be angry with you.'"

"I cannot help thinking that your father has some good reason for keeping silence," I said. "Try and be brave, dear lady, and if you require my aid at any time I shall feel it an honour and a pleasure to serve you."

She raised her eyes and looked into mine.

"I will be brave, Sir Thomas," she answered obediently, "and I thank you for your kind words. I feel that I can trust you, and I hope you will be at liberty to come and stop at my father's house. I daresay he will ask you himself, if he has not done so already."

I thanked her, feeling pleased that I should have an opportunity of being near her again, and perhaps I might be able to elucidate the mystery.

"I must be going," she exclaimed suddenly, "for already they are coming to look for us."

I lifted her hand from where it lay upon the marble balustrading, and putting it to my lips, kissed it softly.

* * * *

I remained with my host a few days, receiving in the meantime an invitation to visit the Astronomer Royal, who had already left with the lady Zoe and most of the other guests.

CHAPTER XVII.

THE MIGHTY CITY OF THE EAST.

THE most beautiful country of the new world was Sitanath, or, as it was known to the people of the old world, India,

Near the southern end of the peninsula was the city of Zeugirdor, on the site of one of the greatest cities of the ancient world, known as Tattvabhushan, the ruins of which were buried ages ago by an earthquake, and were known to extend over many miles.

To the north now stood the city of Sastri Natesi, the mighty city of the world, whose well-staged streets, massive glass buildings, public institutions and lofty towers extended a day's journey to the north and west—that is, travelling in the days of yore. Its wealth was fabulous, and its magnificent trees and glorious flowers surpassed all expressions of admiration, and whose sights every man in the world wanted to see at least once during his lifetime.

I left Germany for Sastri Natesi, accompanied by Kovessi, after bidding my host and hostess farewell and thanking them for their extreme kindness.

Here lived the Astronomer Royal and his daughter, the Lady Zoe, while at Zeugirdor was the chief residence of the Professor of Physics.

In the suburbs of this city a magnificent mansion had been placed at my disposal, where I could reside in the future. Kovessi was to live with me as my amanuensis. I was very pleased with this arrangement, for I had taken a great liking to him and would have been sorry to have parted from him.

The Astronomer Royal had generously offered me a position as historian in the University of Sastri Natesi.

I at first refused, saying that I was not competent enough to be in such a position.

He would not accept my excuse, and strongly urged me to accept his offer.

At length I yielded, and was duly enrolled as chief historian. A notice of the same appeared in the paper later. I was to receive a sum of 76 *dykas* a year, a sum equivalent to £800 or £1,000 in the twentieth century, and which I considered far more than I should ever require.

We proceeded to Sastri Natesi with a speed almost approaching that of light itself.

As we drew near the Sitanathian continent, Kovessi pointed to some dark objects that stretched along the shore for miles. The considerable rapidity at which we were going made it almost impossible for me to see distinctly what it was. It looked like a number of huge floating rafts, with strange machines resting on them.

"For what purpose are those things there," I asked of Kovessi.

"Those, your Excellency, are machines by which the waves are harnessed and made to furnish motive power. You will find them along the coast of every country, and their value is inestimable. Now, for instance, those surf-actuated engines you see below are sufficient to work all the moving stages in the thousands of miles of streets in Sastri Natesi."

"How is that?" I asked quickly, "I cannot see the city."

Then he explained that although Sastri Natesi was some hundreds of miles distant, how easily it was done, and afterwards he explained the machinery to me by drawing one or two diagrams. I only comprehended half what he said, but it was enough for me to understand the feasibility of the idea, something like the electrical apparatus once used in the transmission of power from the Niagara Falls. Thus the sun and waves had been harnessed, and they did more than half the work in the new world.

On the day following my arrival at Sastri Natesi, the Lady Zoe suggested that we should take a ride round the city in her father's flying-machine, promising to show me all the places of interest. It was the finest airship that I had yet beheld into which we stepped from the beautiful gardens.

She whispered some instructions to the aeronaut, and then the flying-machine rose swiftly upwards, but it seemed to me as if the ground had suddenly sunk beneath us, as a terrific breeze came sweeping down on us.

Swiftly and smoothly it rose to a height of perhaps 350 feet, a slight shifting of weight, and with a great whirring of its huge propeller it soared majestically away, a lord of the air.

When we had ascended to a considerable height, I stepped out on to a platform at Zoe's behest, to revel more freely in the splendour and the ineffable joyousness that surrounded us. Oh! that a Milton was here to describe such a glorious scene as the city of Sastri Natesi presented from an airship, for to what height of expression would not a mind like his have attained from the stimulus and inspiration of the beauty beneath. The poets of the thirtieth century could not write of such things as the poets of old, for they were accustomed to the beauties of the new world. The city of Carron had greatly impressed me, but the sight of Sastri Natesi was stamped indelibly on my mind like a paradisiacal vision.

It would not have been possible to find words in any ancient dictionary to define the wondrous beauty of the Sitanathian city. Its cleanliness was astonishing. They have a saying which means: "There shall enter into this city nothing that defileth."

The first thing to attract my attention was a huge globe of pearly glass which rose prominently above the highest building, the lower part being hidden beneath the earth. There were long wide steps leading to numerous entrances. Although we were over

300 feet from the earth this huge globe seemed to be as high again. I saw that the globe represented the earth, with the countries and oceans marked out, its cities, mountains and rivers. In some places were lands where water had been, while some countries had entirely disappeared.

"What is that colossal globe?" I inquired.

"That," she answered, "is the chief science department in the world. There are hundreds of rooms inside."

"You see that big square stone structure with the glass dome," said Zoe, pointing, "that is the only stone building in the city."

I looked in the direction to which my eyes were thus guided, and beheld a stately erection, not unlike a mausoleum, partly hidden from view by trees resembling the palm, but considerably larger.

"Therein rest the ashes of all the great scientists who have died during the last three centuries. In the building adjoining it, are men and even women, whom to all appearances lie apparently dead."

"Are they not dead, then?" I asked quickly.

"No. Some will sleep on for two, five, ten, and even fifteen years. Some are in a trance wrought by the elixir of life, others are in a long mesmeric sleep. What did you do with your dead, Sir Thomas?" she asked suddenly.

"Buried them."

"What?" she exclaimed with a shudder. "You degraded the forms of those you loved and honoured to the corruption of a grave. Think of the disgrace, too, this wholesale poisoning of the earth and springs by dead bodies, a survival of a grossly materialistic conception of a future life that the ancients believed in."

"How, then, do you dispose of your dead?"

"In some points it is not unlike cremation, but simpler and far quicker."

We descended on the aerial stage, stepped out of the flying machine, and went below.

"We are going to the museum, which is just outside the city," said Zoe; "we will take a car."

In our ride through the long streets of this huge city, I took the opportunity of looking at the immense glass buildings on either side. The corners of the rooms were rounded off, like those I have seen in other cities. The people of the new world did not believe in the square corners of the ancient house, where the dust and germs of disease could collect. It was interesting to watch the citizens in their houses or standing on the carved balconies.

The beauty of the Aryan race was incontestable. The people were very much like the European races, both in height and development, of perfection and refinement, and with the same large heads and small feet. They also spoke the same language. There was only one exception by which one could distinguish between an European and a Sitanathean, and that was by the latter's bronze-coloured skins.

Oh, the wonderful eyes and almost too exquisite and regular beauty of the women, who flew by on their wings, or glided past on the moving stages, in groups of dazzling colour. Each one was draped like a Roman matron in tinted and transparent muslins. Their dress was very much like that of the women of Europe and South America. In one respect they differed, by wearing veils. All the women wore veils like the women of old. Some choose a moss green fabric strewn with rose-coloured spots for their veils. Others were adorned with golden yellow shaded with blues, which alternated between tones of lapis lazuli and turquoise. Others, again, were attired in veils lilac coloured, stained with a marbling of bright orange. The lightness of these tissues, the floods of sunbeams and the transparency of the shadows, caused the colours to flash prismatically. And, sometimes, in the midst of a group of dark Sitanathian ladies, there would be seen a white woman from Europe or America.

I was afterwards told by Zoe that the different

coloured veils denoted the rank of the lady. There were no castes. If a lady wore a black veil zig-zagged over with long stripes of silver, it denoted that her husband was a scientist. These, I perceived, were treated with great respect.

At length we arrived at the museum. I cannot say that I was much impressed by what I saw inside. I read the labels as follows, and translated them into their language :

First stone arrow. Invented by the Red-haired One. 3rd cave on the right hand bank of the Danube. B.C. 72180.

The First Saddle. Invented by the Blue-eyed KHINGIN. The Caucasus, B.C. 569000.

The First Axe. Invented by Arpad, son of the Harelip. 2nd Island of the Euphrates. B.C. 28552.

CHAPTER XVIII.

DON TERRECILLA.

I RECEIVED a communication one evening from Don Terrecilla, begging me to pay him a visit, as he greatly desired my help to complete an important experiment. Don Terrecilla, I was told, was a noted scientist who lived at Lamballe, a neighbouring city.

As the visit promised to be interesting and would only mean a few days' absence, I accordingly accepted Don Terrecilla's invitation, rather curious to see him, and to learn in what way I could assist him.

We stepped into a long open vehicle impelled by an invisible agency and were whirled through the streets of Lamballe. Before cafes many people sat at tables, drinking and talking with southern gaiety and animation. In the streets men and women stood together in small groups, or moved to and fro. They were brilliantly attired, and their gestures expressed hilarity and animation.

On each side of the broad street were mighty pillars. The buildings were not constructed of glass like most of the cities I had visited, but were of marble embellished and made beautiful in such a way as only those can conceive who are familiar with marble decoration as exemplified in ancient Greece and Rome. The public buildings were constructed of marble, exquisitely blended with two tints, one of soft green and the other of a deep green shade, which formed a lovely and unique effect. The smaller buildings were made of marble, spotlessly white, and more beautiful than the white Parian marble once obtained from the island of Paros. The people named it "Lychintes."

I believe there was a fine variety of marble called by a similar name, possibly because it was formerly

quarried underground by the light of the miner's lamp.

The chief magistrates of the city, or the *Sumeda*, as they were called, lived in houses built of very dark green marble with light veinings. The cost of the marble, I afterwards learnt, was but slightly in excess of the best building stone of the twentieth century, rendered cheaper by the discovery of vast quarries. It gave the city a beautiful appearance, indeed it was like a vision seen in some rapt moment by one of those old imaginative dreamers of the East.

Everywhere in the air above the city huge winged monsters travelled to and fro, swift or slow. I could see their great shining bodies and the flashing of their pulsating wings. Frequently the note of a trumpet sounded, sometimes faint, but always clear like the sirens of the steamers as they used to ascend and descend the Mersey.

As I was wondering how long it would take to reach our destination, the car suddenly turned to the left and passed out into the country.

To give a complete resume of all we saw would take too long and occupy too great a space. Let it suffice that we saw such scenery as I had never before seen, not even in the thirtieth century.

About a quarter of an hour afterwards the car stopped before the entrance of a magnificent mansion, with two bronze lions on each side. It was built of a marble, deep-red in colour, almost approaching a ruby in hue, and here and there traversed by veins of white. Whoever had designed it must have possessed a rare eye for effect, for, standing as it did on a slight eminence, it commanded a magnificent view of the country around. The hall was vast and stately. In the centre was a fountain with sculptured animals, and carved designs of leaves and fruit. Three large crimson fish swam slowly round and round in the splashing water. It was all perfectly peaceful, vast, spacious, scented and wonderful.

A servant conducted me up a truly palatial staircase to an exceedingly handsome room.

"Dinner is served at seven, Senor," he said, "but you may wish for something now."

In my excitement and interest in all that I had seen, I had forgotten my physical wants. The man's words reminded me that I was hungry, while my throat was parched with thirst.

"Yes, I should like something," I said.

The man noiselessly withdrew.

In a short time he returned, carrying a tray on which were placed a bottle, a peculiar shaped glass and what looked to be some powdered ice and a caviare sandwich. Although it was not what I supposed, it satisfied the cravings of the inner man, and was decidedly better than tabloids. The drink, which might have been a soft white wine from its flavour and appearance, was deliciously pleasant, greatly excelling that of Moselle.

Presently the servant returned, and said that Don Terrecilla would be glad to see me when I was dressed, offering at the same time to help me. He said that he deemed it wise to arrange my sartorial transformation, and assured me that I should fully appreciate the comfort of my new habiliments. I was rather glad of the man's assistance, and having warmed, washed, and been helped into a dress suit, which, by the way, was of the richest silk, figured and embroidered in every conceivable fashion, was graciously permitted to be conducted to Don Terrecilla. He was a big man with a noble countenance, lofty, benign forehead, and the eyes of a scholar and a dreamer. His hair was grey and of a fine texture. His beard a chestnut colour, slightly shot with silver. He was sitting at a desk writing with a quill pen and holding it with the left hand, yet his right hand looked capable enough.

"Sir Thomas Browne of the twentieth century, I believe," he said, as he rose and came forward and greeted me with a smile.

I admitted the soft impeachment.

"I am delighted to meet you, Senor," he said. "I have long hoped to see you."

His voice was like music, rich, low and with something not only dulcet, but caressing in its tones.

"You do me great honour. Will you come with me."

He led the way across to a door, which he opened and signed me to pass through. I did so, and found myself in a large room, which lacked nothing in the way of luxury and refinement. The apartment was lit by five hanging lamps of rare workmanship and design, and which gave forth a soft mellow light.

He placed his foot on one part of the thick carpet, and immediately there sprang up from the floor numberless cushioned chairs, beside one of which I observed a beautifully inlaid huqa of a remarkable shape.

"Pray be seated," he said with an airy wave of his hand.

"By discovering the extraordinary properties of electrumite you extended your life for ten centuries. Is that right?"

I nodded.

"You did more than that; with the prolonging of life you found the secret of rejuvenescence, so that instead of awakening an old man, you have returned to life as you were, say, at the age of thirty. Am I right?"

"This is quite right," I answered, wondering what next he would say.

"For years, I may say, nearly all my life, I have been trying to solve the secrets relating to the laws of life and death."

Once more he was silent. Then, leaning towards me, and speaking with even greater impressiveness than he had yet done, he continued, looking me straight in the face:

"I have been successful beyond my greatest expectations, but there is one thing in which I have failed

—repeatedly failed. 'The secret of rejuvenescence—this is where I want your co-operation. Instead of electrumite I am using an element which is much superior.'

He told me many strange things about the liquid, which I will not write here, as they would not be believed, but from what he said I gathered that he had made several men in some manner like the chemist in Mrs. Shelley's fearful story, "Frankenstein," and he wanted my aid to bring youth to the subjects of his experiments.

"I should like to think the matter over," I said.

"Very good, then, let me know your decision to-morrow."

He rose, and I understood that our interview was for the present at an end.

At this moment the tapestry of the wall on the left hand was drawn aside by a man, who informed Don Terrecilla that dinner was ready.

"Come," said my host, "we will go in."

He led the way, and I followed him across the hall, now gleaming with the radiance of innumerable lights, to a large octagonal and very handsome apartment, hung with green draperies, and lit by hanging pears of light. In the centre of the room was an oval table, glittering with silver and glass, with a tiny tree as a centre-piece, not unlike a Japanese dwarf cherry-tree. The decorations, the napery, and the glass and silver were, as I could see at a glance, unique.

For the first time I noticed the figure of a woman sitting in a remote corner of the room. She arose and came forward as we entered, and I observed that she was the most beautiful woman—and I say it advisedly, knowing it to be true—that I had ever beheld. Her figure was exquisitely moulded, and rendered impressive by her exceedingly decollete dress. Her skin was the most delicate I had ever seen, while the wealth of hair that crowned her shapely head was the colour of Venetian gold, and wonderfully rich in texture,

as fine as floss silk. Her loveliness was inexpressible, amazing; merely to gaze upon it was intoxication. The soft mystery that dwelt upon her features was surpassing in beauty. Some such mystery might have been seen faintly on the faces of certain of the masterpieces of the old Greek sculptures. It made this being look divine, suggesting a glory that was not of earth. No picture of the Madonna in the art galleries of the old world could compare to this woman's loveliness. She made a picture of such wondrous beauty that I could do nothing but stare at her spell-bound.

As she came towards me the chain that she wore round her neck was so wondrously set that the stones flashed out a continuous line of fire.

"This, Sir Thomas, is Ayala, my daughter," said my host.

And then she did a thing at which I marvelled, for she bowed to me very courteously, and said in a clear bell-like voice :

"I am delighted to meet you, Sir Thomas. I hope you will remain with us. You are most wonderful to have found the elixir of life."

I bowed my acknowledgment to the compliment she paid me.

"What do you think of life in the thirtieth century, Sir Thomas?" she asked, in a low but singularly clear voice.

Don Terrecilla interposed :

"My dear Ayala, you must remember that Sir Thomas has had but little opportunity, at present, to see much of life in this age."

Ayala shrugged her white shoulders; it was evident to me she didn't like being interrupted.

My host occupied one end of the table, while I was honoured with a chair on his right. Donna Ayala took that on the left. Two men, who might have been automaton figures, moved round and round, serving a dinner that was worthy of the finest chef in the old

European world. It was perfect in every particular, and I did justice to it. Don Terrecilla scarcely touched anything, but he did the honours of his table royally.

"How much better it was," I reflected, "to eat a meal of this kind than to slowly munch a tabloid, which never seemed to appease my appetite."

A bottle containing some red colour liquid stood on the table near me, which I concluded was some kind of wine. I glanced casually at the label, and my eyes caught the figures 1865. I looked again and read :

"Sparkling Scharzhofberger, Vintage 1865."

Now I flatter myself to be a connoisseur of wines, and the wine that the servant poured from the bottle into my glass was the best I had ever tasted, and worthy of imperial cellars. It was soft flavoured, rich and full, and evidently very old, but I doubted if it were more than a thousand years old. I found out afterwards that it was done to honour me. There was another wine on the table, which was very effervescent. It was called *Freyja*, whether it was the name of the district or of the maker, I do not know.

Our conversation was by no means desultory. We discussed many subjects, speaking chiefly of life in the twentieth century, of which the Donna Ayala's knowledge was extensive. Indeed, she seemed quite as much at ease in talking of the beauties of the East, literature and art, music and painting of the year 1905, as of some familiar topic of the age in which she lived.

After dinner Don Terrecilla withdrew.

"I shall not see you again to-night," he said to me on leaving. "Remember, I shall want your answer to-morrow; I hope it will be favourable." As he spoke, and as if to emphasize his request, he shook my hand warmly and departed.

CHAPTER XIX.

DONNA AYALA.

AFTER he had gone, Ayala led me to a small but stately apartment. A rich carpet covered the whole of the floor, and the walls were dazzling white. Couches and easy chairs, upholstered in rich crimson velvet, a profusion of palms and four miniature fountains playing, completed the ornamental part of the furnishing. The tapestry itself must have been worth a moderate fortune.

She suggested that we should play some games, and selected one which proved quite interesting, but very complexed.

Harima, as the game was called, consisted in moving a number of small ivory pieces over certain squares on a small round table with a polished top, in order to form a figure in the centre. The one who first succeeded in so arranging his pieces and checking his opponent was declared to be the winner. In some points it was like the old game of chess, but far more difficult. We played perhaps a dozen games in all, and I only managed to win once, and then it was really a game in Ayala's favour, for she made a false move, which I could see was done on purpose to encourage me.

Next she asked if I was fond of music. I made an affirmative reply, adding that I should be most delighted and greatly honoured if she would play.

She smiled very sweetly, and placed herself before a musical instrument not unlike a harp, which rested on a low, hollow stand, intended, no doubt, to increase the resonance of the instrument. The harp, ending in a sort of sounding-board rounded like a shell and coloured with ornamental paintings, had at its upper

extremity a carved head. The strings, ten in number, were strung diagonally, and vibrated beneath the slender fingers. Then she commenced to sing to the twang of the strings, a song quite new to me, both in words and music, and surely one of the most delightful melodies that had ever occurred to the brain of a musician. Before she had sung a dozen bars, I was enchanted. It was the most perfect voice I had ever heard, so rich and full of inexpressible sweetness that the greatest connoisseur of the past must have been thrilled. Now and again she bent with a graceful movement to reach the lower notes of the harp, as if she wished to float upon the sonorous waves of music and follow the fleeting harmony. I did not speak for some little time after she finished, my heart was too full for words.

It was now time to retire. Ayala said I must be tired, and commanded a servant to show me to my room.

I gave an exclamation of surprise as I entered. Everywhere were beautiful coloured hangings, to say nothing of ornaments in gold, silver, ivory and bronze. On a small table in the centre of the room stood a crystal bowl full of sulphur-coloured flowers like roses.

I did not attempt to undress, but stood looking out of the broad low windows, which were wide open. Here could be seen one of the most beautiful views in the whole world.

I tried to sort and analyse the multifarious sensations of the day. I could not do so, my brain was throbbing with excitement. I decided that I would remain.

The night was warm and quiet, and the moon, which had just risen and was near the full, shone with steady brilliance. In the distance I could discern a range of mountains.

I turned my head and looked towards the centre of the room, but the reflection of some sort of light caused me to turn abruptly and glance out of the window again.

The moon was now hanging above like a silver shield, showing clearly the mountains and a square white building on its summit ; yet I felt sure that it was not the light of the moon that I saw.

A dark cloud came up and obscured the moon, and the world was in semi-darkness. Suddenly, from some spot near the building in the distance, came what at first appeared an ordinary lightning flash. It assumed a sharp zig-zag form, while rocket-like scintillations seemed to come from it. Then it resolved itself into a large red ball, something like a meteor with a sharp tail, and then disappeared. A second flash rose upwards, and dissolved itself into a great number of small brilliant balls. This discharge gave the impression of a string of pearls sparsely distributed.

The second flash died away, and there glowed upwards and around a faint phosphorescence, from which shot with pulsating regularity long streamers of light and spiralled up into the heavens.

After that radiance my dazzled eyes could see nothing.

I stood for some time expecting to see another exhibition of light, but nothing could be seen.

I undressed and soon fell asleep.

CHAPTER XX.

/

BUE.

THE next morning I rose early and made my way downstairs with the intention of exploring the gardens. A servant—human or automaton, I do not know which—stood in the great hall and opened the door for me. The grounds were vast and very beautiful.

After wandering about for some time, I came to a little arbour covered with rose-like flowers, a miniature temple in the Italian style, built of white marble. I found a seat and sat down, while the vivid changing incidents of the day before passed before my mental vision in a riot and welter of thought.

“You are abroad early, Sir Thomas,” said a voice near.

I looked up and beheld Don Terrecilla.

“Yes,” I answered, “I was tempted to come out into these lovely gardens.”

“Have you yet decided to remain here?”

“You refer, I presume, to our conversation of yesterday.”

He nodded.

“I have thought the matter over, and since you wish me to remain I shall be delighted to stop and assist you to the best of my ability, but I fear that my twentieth century ideas will be of little use to your modern theories.”

“I thank you from my heart for your kindness. I am glad you have decided to stop. You will help me more than you think, as I will show you shortly.”

As he spoke, he fastened his dark piercing eyes upon me, apparently without any interest, and yet I felt as if he was reading the inmost thoughts of my brain.

Then he pointed with his hand to the large white building on the mountain.

"Did you observe anything strange over there, last night—a light . . . ?"

"Yes," I replied quickly. "It puzzled me greatly. Can you explain the phenomenon?"

"Yes, but not now. Do not be alarmed, there is no danger. I am extremely sorry not to have set your mind at rest before, but I had forgotten that those lights were unknown in your age."

He then left me, while I strolled slowly back to the harbour by another way.

I followed a path on both sides of which palms rose up into the still fresh morning air with feathery gracefulness. Between them were red poinsettias and heavy gum blossoms, while in the background were great mauve masses of bougainvillac and the white perfumed trumpets of the datura tree. I have described the plants and flowers by names which they most resemble those of the twentieth century.

Here and there white marble statues showed out amongst them. The air was all scented, the world was enchanted, and the hour sweet. All was splendour and perfume.

The path turned off abruptly, and I came face to face with Ayala. She smiled at me a flashing radiant smile:

"Why, Sir Thomas, I thought I was first on the scene," she said. "What do you think of the grounds?"

"They are very beautiful," I said. "I could almost imagine myself in the Garden of Eden."

"The Garden of Eden! I have never heard of it."

A servant who had been seeking us informed us that breakfast was ready. "We made our way to the house and entered through a long French window.

Don Terrecilla entered the room too, at this moment, and we were invited to partake of a sumptuous meal.

On the exquisitely embroidered white linen cloth was displayed such a beautiful collection of gold and

silver ware as I have never before seen. Three heaps of fruit, consisting chiefly of a fruit like grapes, were piled on three lovely Sèvres dishes, around an iced 'cantaloup which decorated the centre of the table.

Ayala touched a tiny silver gong, and breakfast was instantly served by the same men who waited on us the previous night.

I have breakfasted at most of the famous old restaurants in Europe, in Paris, in Rome, London and Vienna, but this meal excelled any I had ever partaken of before. The *dejeuner* could be described as perfect in every detail.

After breakfast Don Terrecilla conducted me to the room where I had conversed with him the previous night.

"And now, Sir Thomas," he said, after bidding me to be seated, "since you have promised to help me, it is but right that I should give you more idea of what I wish you to do. Let me show you the vault."

So saying, he stooped and drew back part of the thick carpet, when a square outline showed itself in the floor. He touched a spring somewhere in the wall behind him. There was a sharp metallic clang as the stone entrance slid slowly back, revealing a flight of stone steps, which he descended.

Two narrow passages led from the bottom, one to the left and the other to the right. Don Terrecilla chose the one to the left. After walking some five or six yards he stopped suddenly, and from a cupboard in the wall produced two overalls made of fine metal gauze.

"Put this on," he said, handing one to me.

I did as he requested, and in a short time we were both completely enveloped from head to foot.

"That will do," he said, "Come this way."

I followed, wondering what it all meant, till we came to a huge steel door, not unlike the door of a Milner safe. From his pocket he produced a curious and delicately wrought key.

"Tipped with platinum," he observed, as he inserted it in a keyhole of a peculiar shape.

Although he merely turned the key, the heavy door swung slowly back, as if moved by invisible hands. I have wondered since if what I saw inside was some strange dream.

The whole place was in darkness, and the very air of the room seemed to be vibrating with electric influences.

I caught hold of his arm, and he led me to one corner of the room, and bade me to remain quite still.

He left me, and I could hear him walking across the room with firm steps, as though he knew every part of the room, even in darkness. Without any warning the walls of the room seemed burning with fire.

It was as if I stood in a furnace of light. For a moment I felt as if the world was spinning round my head a million times a second. The room swam before my eyes like a flying flame of fire. I felt giddy and faint, and then all at once a great desire seized and shook my very soul. It was almost madness in its vehemence—a craving for some cooling drink, particularly water. My throat felt as if it had been sprinkled with hot sand, while a fire seemed to be burning within my body, and yet the room felt so cold that I shivered. Surely no man before ever experienced such an uncontrollable longing for water. Around my body there came a sort of aura of radiance, which shone through my clothes and the gauze overall. The fiery flame was replaced by a small light, which gave me an opportunity of examining the room.

All around, and in every corner, were test tubes, glasses and various chemical paraphernalia, and some strange looking instruments, apparently for every sort of chemistry known. On one table lay a heap of what looked to my gaze to be jewels.

To say I was astonished would be the very exaggeration of rhetorical restraint, for these were such a collection as surely few men have ever had the privilege

of looking upon at a time. They varied in size from minute specks to stones as large as filberts, and there were in all, I should imagine, something like fifty of them. And what rays! If all the cut-diamonds in the world were brought together and set beneath a mighty burning-glass, the light flashed from them would not have been so brilliant as the light from one of these.

He picked on one, so tiny that it rolled in the palm of his hand. He contemplated it in silence for a moment, and I noticed that his forehead was contracted with thought.

"Do you know what this is?" he said at length.

"I should have said they were diamonds at first, but I am not so sure of it now."

"Touch it."

I placed my finger on it, and drew it away as if I had placed my finger on a hot iron.

"What is it?" I queried, my scientific interests aroused.

"This is but the cover," he said; "inside is something that is greater than radium or electrumite."

I cannot remember all that he told me, but this I did gather—that the light I saw on the mountain and in the chamber was one of the manifestations of a potent force called *bué*. There was, I believe, some similar power described rather vaguely in a book entitled "*The Coming Race*," by Lord Lytton. It was there named *vril*.

Bué was the motive power that had brought aerial navigation to perfection. It was metaphysical and spiritual, perhaps occult and magical, in its character. Few knew from whence it came. When Herman Hatzfeldt, the discoverer, first found *bué*, he achieved what the greatest minds in the whole world in the past had barely outlined.

Becquerel, Rutherford, and the Curies, great as they seemed, were merely playing with the letters of the Greek alphabet, Alphas, Gammas and Rhos.

"Bué is used in many ways," said Don Terrecilla. "In one department the energy is used for light, a light that illuminated nearly the whole world of 2905. In another department bué performed many engineering feats that in my time would have been considered impossible. The numerous power houses in every part of the world supplied the airships with bué as they flew through the air."

"In this laboratory," said Don Terrecilla, "I am at present investigating the laws of life and death. I have used bué as you have used electrumite, but still I shall require your help to complete my success. But come, I have something more to show you."

He led me to a door on one side, exquisitely carved. He pressed a white knob, and it slowly opened.

I suppose it must have been a library, for round the walls were shelves filled with books in all bindings.

"Here," said Don Terrecilla, with a wave of his hand round the room, is a mine of information. With the exception of a few books, which are printed in a language I do not know, I have read them all. Those that I have not read I want you to translate for me, for they are written in your language. I have put them apart from the others."

He went to one side of the wall, slid a panel to one side, and brought out from a hidden recess a long roll of antique parchment—prescriptions. Next followed a small pile of books, not more than six or seven in number. He selected one and held it out to me. The book was a quarto, bound in marbled paper with black leather over the hinges. An external label bore a name which I could not read. He placed it on a table and threw the cover back. Neatly lettered on the inside, in the fine and slightly angular writing characteristic of the Teutonic scholar, was written :

"Dr. F. Schwarz, Berlin."

"Looks like a German book," I said.

"Yes, it is a German book, all about one of the most wonderful things in the world—the brain. I

want you to start on that book as soon as you can. It will help me in my investigations relating to the laws of life and death. It is the brain that baffles me."

The opposite page was blank. I turned three or four leaves, which I could see were chemical formulæ with some marginal annotations.

"You need not write your translations, simply speak into that machine," he said, pointing to an instrument like a phonograph; "the machine prints the words as you utter them."

Once I turned my attention to a revolving bookcase of strange design, full of volumes. One of the books seemed to be a medical treatise. The characters were unusual in shape, but decipherable. I read the names of several familiar diseases, and many more quite new to me. I looked, too, into a book of poetry. The poetry was unrhymed, and seemed to depend for its harmony upon accent or number.

The novel, I found, was extinct, its place being taken by a series of pictorial romance, in which the scenes were depicted with dramatic realism by brush and cameraphone, the literary matter being merely explanatory.

In art the discovery of almost innumerable new colours had created new schools of painting, which would not perhaps have commended themselves to the artists of the past. The human eye had been trained to possess and gradually evolve a keener perception of colour. Between two books I found several long strips of indented paper. Afterwards I learned that these were journals which could be placed in a talking machine, and story-teller and poet, humourist and author, delivered their message in their own voice. In this way everyone was able to listen to the sweetest music and the best poetry, or be lulled to sleep by some fairy-tale sweetly told.

One volume greatly interested me. It was a curiously bound book divided into ten parts. Each

part represented the history of the world for one century, commencing from 1700, and each division was separately bound in red silk, but all ten were gathered together under one general colour of limp silk cloth, a deep rich purple in colour.

All were tied under this cover by heavy red silk cord, which, by untying each part, could be taken out separately if desired. The whole was very unique, and a marvel of the bookbinder's art. To handle its leaves was like dipping one's fingers in pot-pourri. Its dim, faded characters, on the old thin paper, were barely decipherable.

Don Terrecilla said I should find the volume very interesting, when I felt disposed to read it.

CHAPTER XXI.

EAST AND WEST.

SINCE nothing occurred during the next few hours, I should like to insert a brief and succinct account of the huge political changes since 1905, which had culminated in Japan becoming the leading nation of the world. I say Japan, but it would be more correct to say China and Japan, for the two nations had combined together in 1957. Before that time China had been like a giant asleep, but under Japanese influence her five hundred millions adopted Western methods. Like a giant refreshed the somnolent Celestial intellect awoke from the sleep of ages and became a mighty power. On the 13th of February, 1958, the second Russo-Japanese war was declared.

Russia had by this time almost recovered from the losses sustained in the war of 1905, and had built another fleet. She had never really forgiven Japan for her victories in the war of 1905, and was now seeking an opportunity of revenge. Just at this time the *Novoye Vremya*, one of the most influential journals in Russia, commented in bitter language on the fishing rights which had been bestowed upon Japanese subjects. It seems that they were allowed to fish in the estuary of the Amoor on an equal footing with the Tsar's subjects, to catch seals, whales, and other mammalia, to trade in fish on the Russian shore, and to exercise rights denied to all other foreigners by the coasting trade laws. This stipulation the *Novoye Vremya* called an egregious blunder.

To bring matters to a climax, M. O-Matsue, the Minister Plenipotentiary of Japan, was shot in St. Petersburg by Alexander Kuznetsoff, the Russian Minister of Foreign Affairs. According to the curiously

bound old book, M. O-Matsue was arranging the signing of a new convention and protocol respecting the stations of Kwong-chang-tsi and the Chinese Eastern and the South Manchurian Railways.

Just at this time a Russian officer named Yaroff, gave particulars of a crew of Japanese fishermen who were supposed to be lost along the Russian Pacific coast, but who, he said, had been murdered by a party of Russians. The Japanese Government were furious and demanded the punishment of the murderers and full explanation of the death of their minister, and a satisfactory compensation. The Russian Government not only refused to entertain any proposals, but said that in future no Japanese would be allowed to fish on their coast. War was declared on the 13th of February, 1958, as I stated previously.

Both nations possessed a fleet of aerial warships. Their value had been recognised in the war between England and Germany. From that time men had seen great advances in aerial flight. The introduction of wing-power instead of rotary fans was successfully achieved and rapidly perfected. Both nations had engaged in their services the greatest mechanical and scientific geniuses of the day to build huge airships, and had spent vast sums of money on experiments.

Sometimes the Japanese were victorious, while at other times the Russians were triumphant. Just as it seemed that the Japanese must be vanquished, one of their great scientific geniuses increased the speed of the remaining airships, and from that time Japan began to be victorious; for it was obvious from the first that the nation who owned the swiftest airships would become the victors.

Besides increasing the speed of the air vessels by improved wing power, he succeeded with the collaboration of a distinguished chemist, in inventing an explosive pellet. The idea was not exactly new, both had been working at it for years, but it was the first

time it had been used in warfare, and its value soon became quite evident.

The guns of the airships projected a little globe, which at a certain distance, provided by the adjustment of an indicator in the weapon, exploded and diffused all around a zone of sudden death for every living thing within its circumference.

Ten days after the explosive pellets were first used, the Russians sued for peace; and the inventors were promoted to the highest positions in the aerial departments.

CHAPTER XXII.

HUGE BIRDS.

SOME little time later Don Terrecilla took me, with Ayala, to the white building I had seen from my window.

The air of the mountain was sweet and cool. I smiled as I thought of the great German poet who lived centuries ago, and who said "that in the air of the mountains he felt as though he could pick his teeth with the spire of Strasbourg Cathedral and eat up all the elephants in Hindustan."

As we entered we found ourselves in a circular corridor running right round the building, from which doors at regular intervals led to the interior arena.

Don Terrecilla conducted us into one of them and up a circular flight of steps on to a gallery of observations that ran round the walls beneath the great dome. This place was dimly lighted, and for a few moments our eyes partially failed us. Presently I could discern in the very centre of the place, high up towards the great dome, an immense ball of lambent light. It looked like a gigantic orange, and seemed continually to contract upon its centre, and then to expand again in a weird fashion that strangely taxed the vision of the spectator.

"What is that," I whispered to Don Terrecilla.

"It is a manifestation of a force infinitely subtler and stronger than electricity," he answered, "metaphysical rather than physical in its character."

"Is there a mine of this substance somewhere here," I asked.

"Yes, there is a mine here. Look below."

I turned my gaze to the space beneath the quivering ball of light and gazed vainly.

"I can see nothing," I said.

As I spoke, I saw the great light slowly descend, still pulsating with the strange vibrations of expansion and contraction, lower and lower, then round it, beneath it and above it. I could discern a dimly lit abyss, which seemed as if it must swallow the great orb of flame, which grew yellow and red as the sun looks through the mists of the morning ere he breaks out in brilliant majesty on the new day.

"Look again," said Don Terrecilla.

As I did so, by the now growing light of the great luminous ball, I could just see, leading apparently hundreds of feet below us, a winding gallery of steps protected by a copper coloured handrail.

"Come," said Don Terrecilla, "we will descend."

He led the way down the steps from the gallery, and presently we found ourselves on the margin of the abyss at the commencement of the steps. Slowly we followed him, stair by stair we descended slowly, making the circle of the great pit several times. At length we came to the entrance of a narrow adit in the side of the great shaft, in which one could stand upright. He touched a switch, and the passage was at once irradiated with light. Following him a few yards, we came into a great rock-hewn chamber, which at his touch became brilliantly luminous.

All around us were ebony-like walls of blackness, and a silence as of primeval nothingness. It strangely recalled to my mind the catacomb in which I had so long slept.

I cannot remember how many passages we traversed but the number seemed endless. Just as it appeared that we must come to where we were before, for the passages were circular, they would turn abruptly in an opposite direction. Certainly the situation was one calculated to harass the nerves of us all.

I remember as I reached the entrance of a narrow passage a strange disinclination to enter overtook me. It was probably mere fancy, but it seemed still narrower and more confined than the other passages,

After what seemed hours we reached the end and emerged into the open.

The whole place was filled with sunshine. And the air! It was intoxicating, warm, exhilarating, dry, with spring breathing in every rhythmic wave. It imparted a feeling of youth and freshness which was simply delicious.

We found ourselves in a garden full of peculiar flowers and shrubs.

We followed a tangled path bordered by strange flowers; some were in the form of enormous long-legged spiders, and others looked as much like the dishevelled head of a woman as could be. Some plants had the appearance of large and ripe strawberries.

To the left was a magnificent piece of rockery and water vivid with many rock, aquatic, and bog plants and flowers. We followed a tangled path bordered by rough undergrowth of stunted yew or some such shrub, behind which on either hand dense woods receded right and left.

How can I describe the trees! They did not resemble any I have ever seen before. The leaves were broad, soft and fleshy.

In the distance the sea rushed up in deep blue waves of indescribable transparency between orange coloured rocks. To the west my eyes ran from peak to peak of wondrous mountains entwined by gauzy films of gold. With utter amazement I counted eleven cone-shaped peaks in an air line.

While I was contemplating this wondrous scene, I heard a strange noise, like the whirring sound of wings. Across the stretch of azure sea I suddenly beheld two enormous winged creatures, their forms clearly outlined against the sky. Their flight, considering the regular, slow and almost lethargic pulsation of their wings, was remarkably swift. As they came nearer I perceived that one was quite white, but the other was more graceful and of a plumage indes-

cribably brilliant. No bird in the old world, not even the bird of Paradise, could show such glorious hues. These hues were so many and so blended that I could not describe them, only that a more flashing variety of gold seemed to predominate.

As these huge birds passed over me the rushing sound of the wings became like the roar of a mighty cataract. Then suddenly there pealed a brazen sustained note, like the sound of some trumpet or siren. It was, without doubt, the trumpeting of those mighty birds. They became smaller as they flew away from me and finally disappeared behind the range of mountains. I wondered what bird there was upon the earth that could, even in one thousand years, evolve into such gigantic proportions as these winged creatures. Perhaps they were not birds, but the winged saurians or other monstrous flying creatures of the antediluvial ages, the dawn of geological time, eocene or pheistocene. The gigantic *Diplodocus*, the greatest of all earthly creatures which flourished during the Jurassic period.

For a moment I could almost imagine myself living in the mighty past, in the beginning of things, in the age of mastodons and flying reptiles and other extinct monsters. Then at once I remembered that man had solved the problem of aerial navigation. These mighty birds, or flying saurians, were winged ships that conveyed men from place to place.

Suddenly I heard a piercing scream. Looking round, I saw Ayala some thirty yards away, her face deathly white. She had stooped to pick some flowers, but I could see no sign for any alarm. But as I looked I saw two green iridescent spots of green flame glow out from the dense undergrowth near. Through a small clearing I beheld an animal not unlike a snow-leopard, but rather larger and with yellow fur. Before I could render her any assistance a bar of yellow seemed to flash against the sombre background as the huge brute leaped out and sprang for Ayala. As it descended

it gave her a smashing blow upon her shoulders which sent her stunned to earth. She fell, sprawled between the great paws, her face swept by the fur of the heaving chest.

For a moment I stood as if rooted to the spot, then suddenly remembering that I had a knife in my pocket, I ran with all speed towards the savage brute.

With all the power of my muscles I brought the knife home. This was difficult, because there was a danger of striking Ayala. The animal separated from her grew limp, and stilled itself through one dense instant, and then shot into all the activity of the dying struggle. The spasms of her unconscious agony brought the brute's talons upon Ayala's body again. Finally, with one last heave, the panting chest was stilled, the grinning head fell back.

With the help of Don Terrecilla, who had now arrived on the scene, I pulled the corpse from Ayala. She lay in a pool of warm blood, and her face was so death-like in appearance that a sickening dread came upon me as to whether she was really dead. The same thought must have entered the mind of Don Terrecilla, for there was an anxious look in his eyes, as he gazed on the still form of his daughter.

On examining her he found that she was but severely shaken and that there was no wound. The blood was that of the animal.

We carried her home between us, and although she was not much hurt, it was some few days before she could leave her room, for the shock had been very great.

CHAPTER XXIII.

THE DEATH FLOWER.

THE next day, while exploring the vast ground surrounding the mansion I came to a path which I had not seen before. The path was sunlit; no more could I help following it than the Hamelin children the fluting of the Pied Piper. The scene that met my gaze, to employ an old hackneyed phrase, beggars description. If I were a literary craftsman of more than ordinary ability I might give some idea of it. But being only an amateur word-painter my pen is quite incapable of describing such a scene in words of pigments as I should like to do.

Try to imagine a garden full of flowers resplendent in every colour that is known. Some grew so low that I could look closely at them and breathe their fragrance, others were tall, with a corolla so wide that its petals could have cradled a child. Between them rose groups of strange six-fingered vegetals without flower. Imagine every variety of form, every fantasy of structure, and still the scene is imperfectly described.

A miniature lake, strangely transparent, reflected the flowers of the garden, while over it, like a beautiful sorceress, bent an azalea dropping scarlet petals one by one on the motionless surface as if performing a mystic rite.

I walked as one in a trance, with eyes half closed and all my senses numbed in a langour of delight. How lavishly every flower shed its scent, equally indescribable, as from a priceless flask. Then I became conscious of one perfume as rich and as sweet as the others, but containing a property quite different. It seemed to come from a peculiar shrub a short distance

away. I felt intoxicated by the smell and walked towards it. There was something in this strange perfume that compelled me to walk towards it. The nearer I drew to the shrub the stronger grew the perfume, and the less able was I to resist the attracting power. To be drawn towards a shrub by some scent it yielded reads like a story from the pages of Hans Anderson's fairy stories. But I am positive that this is what really happened, and that it was no dream. There have been times since when I have doubted the truth of what I saw in this strange garden, but I have only to look at a long scratch across my wrist to convince me what I saw was a strange reality.

When I reached the shrub I gazed at it in a fascinated way. I say shrub, but it was not really a shrub, neither could it be called a flower, and yet it was really both. The whole structure of the plant was so different from anything that grew in the twentieth century that any name must be necessarily at fault in describing it. Imagine a stem about four feet in height, straight and thick, and dark green in colour, from which came seven or eight roots not unlike the tendrils of a vine, but as thick as a man's arm. They trailed along the ground for several yards. But what most attracted my attention was the flower of the plant. It grew on the stem, and to a casual observer it would have appeared to be a white rose as large as a saucer. But when I looked closely at the flower, there came to my mind the sweet lines of Heine on the Mystic Lotus :

Die Lotus Blume angstigt
Sich vor Sonne Pracht
Und mit gesenktem Haupte
Erwartet Sie traumend die Nacht

Der Mond der ist Ihr Buhle,
Erweckt Sie mit seinem Licht,
Und Ihm entschleiert Sie freundlich
Ihr frommes Blumengesicht.

There was something in the words of this dainty old song that seemed so weirdly suggestive of this wondrous flower. "*Ihr frommes Blumengesicht!*"

As I mused and still gazed, I saw in a moment the "flower-face," the Blumengesicht of the poet, smiling at me. Was I dreaming? Or was the strange perfume that was now overpowering, acting on my brain?

'Twas a woman's face, or else my sight was vision-distorted, my brain reeling towards madness. I remember I tried to pull myself together to break this unearthly spell, but the attempt was useless. I knew that I was compelled to look into the flower face as if I was hypnotised. A flash of crimson wings and the joyous burst of a cardinal's song shattered the stillness for a moment, but it was impotent to break the spell.

The beauty of the girl flower was as the beauty of the Lady Zoe. There came an alluring smile on the face, like that I have seen on the face of Ayala. Were not these her lips, her eyes, her smile?

I took a step forward to assure myself of the reality of my vision—another step, and another.

My head swam, a delicious languor took possession of my very soul; I put out my hand, and half consciously touched its soft velvety leaves. What happened next I am not quite clear about. I have a dim recollection of seeing one of the long arm-like roots encircling my legs and holding me to the earth as if chained. Then it seemed as if the rest of the arms rose from the ground with extraordinary quickness and passed round my arms and wrists and drew me to the flower.

I struggled with all the strength that I possessed, but I was as a child in the arms of a giant. The long sinuous arm coiled round my body and held me absolutely powerless. I shiver now as I write these lines, for I can fancy that I feel the tightening of that demon-arm.

My strength was fast spending itself. I could not

possibly hold out much longer. Still the eyes of the death-flower looked into mine, while a wondrous mocking smile seemed to greet me. I felt with a sudden intuition that it was the flower that killed.

My breath was now coming in sharp quick gasps, a great faintness came stealing over me. The death-flower, the flesh-like branches danced wildly before my eyes and seemed to be turning black, while the ground felt to be slipping away from me.

Finally my legs tottered, a thick mist rose before my eyes, and I remembered no more.

When I came to myself again I was lying in a room which seemed familiar. Someone was sitting by my side. It was Ayala. She touched my hand with her soft fingers, and poured some dark red mixture into a glass. She put it to my lips, and I drank it without protest.

"What is the matter with me? Why am I laying here?"

"You have been very ill, but you are much better now."

"How long have I been ill?" I enquired.

"More than a week," she answered in a voice just like a silver bell.

I felt too weak to question her further, and lay wondering why I had been ill. Suddenly there came to me a vivid remembrance of that terrible death-flower. It seemed at first a hideous dream, that flower with a woman's face and lips that smiled, but when I caught sight of my bandaged arms and hands I knew that my experience was something more than a dream.

I supposed it was the physic Ayala gave me, for soon I was wrapped in a heavy slumber, from which I did not awake for several hours.

This time Don Terrecilla was standing beside me; Ayala had disappeared.

"How do you feel now, Señor?" he asked.

"Much better," I answered, "though somewhat weak; but tell me"

"I saw you enter the garden," he said, "and presently followed you. I could not find you at first, but at last was horrified to find you embraced by the death-flower. I was almost overcome as you were by the wonderful, indefinable fragrance that emanates from every petal of the flower. Happily I had a sharp knife, with which I severed those arms that held you fast. I began to hack and tear away like a madman, till one by one the tentacles were torn from your flesh."

"Then I owe my life to you. But was it a plant?"

"Yes," he answered, "it was a plant."

"And I distinctly remember seeing a face."

"A face!" he exclaimed, as if surprised.

"Yes, a face like that of a beautiful woman."

Don Terrecilla looked mystified for a moment or two, and then turned to me with the keen illuminative gaze of one who understands.

"What you saw was an illusion created in some mysterious way by the potent perfume of the flower. There is something in the perfume that weakens the strongest man and makes the sanest see visions. The plant is carnivorous and is a flesh eater, and murders its victims by its flexible roots. It is named *Hamara*."

There was, I now remember, a tropical plant that existed in my time—its name I have forgotten—that subsisted chiefly on insects and small birds. Its victims were slowly assimilated—literally eaten—by the plant.

Each day I became stronger, and was soon well enough to translate the manuscripts and books which Don Terrecilla had handed to me. When this work was completed I returned to Sastri Natesi.

CHAPTER XXIV.

A MESSAGE FROM MARS.

THE following paragraph appeared in the thirtieth century paper one morning, which Kovessi read to me :

" A giant body, like a projectile in shape, and weighing many tons shot down from the sky white hot, and scattering explosive fragments on all sides. It struck the earth near Pantula with fearful impact and disappeared, leaving nothing but a clear cut hole."

A few hours later a bell tinkled, and we knew that more news had arrived from the news service.

Kovessi and I, who had been conversing together, hastened to the news room and stood facing the trans-piguous sheet on the wall ; as the letters appeared and formed words we read :

" Investigations have been made respecting the body that shot down from the skies a short time ago. The Professor of Physics, with a staff of scientists, at once proceeded to the spot where the body fell. Two scientists descended into the hole and proved that the body was not a meteor, as at first supposed, but a huge cylinder made of a mysterious metal, lighter than steel and stronger and tougher than talium, and hollow inside. The Professor of Physics afterwards went down, and he is convinced that the projectile came from Mars. He arrives at his decision in two ways. On testing the outside covering, which was still hot, he was able by the heat to prove that it had travelled 48,600,610 miles through space. In the second place, he states that it is made of a metal exactly like that used by the Martians. It will be interesting to hear the Astronomer Royal's opinion on the matter. We are informed that he has just left Sastri Natesi for Pantulu in great haste."

"Let us go at once to Pantulu," suggested Kovessi excitedly, "we may see something interesting."

"Yes, let us go by all means," I agreed, with equal enthusiasm. "Where is Pantulu?"

"It is a small town situated to the west of Sitanath, about five minutes' ride on the cube."

When we arrived at Pantulu we were informed by a stranger that the body had fallen in a field between Pantulu and another town nine miles distant.

An *evongram* was just leaving for the field where the body had fallen.

The *evongram* was an airship which went by means of liquid air, which it produced cheaply as it flew through the air, so that, once started, it ran until the operator stopped it, there being a constant supply from outside. Moreover this supply never gave out, there being no waste, and the air was purified by the liquefaction.

There was much discussion amongst the passengers in the *evongram* as to the reason why the Martians had sent the enormous body to the earth.

Had it anything to do with the strange signal?

Did the Astronomer Royal know it was coming?

What would he do when he arrived?

These were some of the questions asked, but no one answered them.

Everyone was excited, and the numberless airships that followed in our wake showed that the incident had aroused considerable interest.

Hundreds of people had already assembled in the field when we arrived, and were trying to get near the big hole. A strong force of *civi* were lined round the side to keep the people from falling in.

I was greeted by the Professor of Physics and several scientists who were waiting for the Astronomer Royal to arrive.

"Do you think there is anything inside of the projectile?" I enquired of him.

"Yes, I do," he replied quickly. "There is

scarcely any doubt about it, but we cannot find an opening."

A low murmur arose from the people. Count von Linden was coming. His airship had just arrived. The people stepped back to allow him to reach the hole.

He did not appear to notice anyone, but walked in a dazed sort of way to the place where we were standing. It was only when he reached the side of the hole that he seemed to recognise anything. Giving us a quick nod he turned to the chief engineer, who, with a staff of assistants had been summoned to the field, and said, speaking with the lucidity and emphasis of a man accustomed to command:

"Look carefully at the projectile below, and you will observe a number of raised black objects. A little to the right, near the end, which is farther away from us, you can see one which is four times as large as the other. Now I want that spike-like arrangement struck with a powerful blow, a blow sufficient to send an aerial projectile a hundred miles; when the Martians sent the cylinder to the earth they intended the spike to strike the ground with sufficient force to open it automatically. But it seems that it was not struck hard enough."

A brief colloquy ensued between the engineers to decide on the best way of striking the object. After some little consultation, an electric gun was brought from a neighbouring aerial-projectile station, and placed on the edge of the hole, the bore being directed to the black object on the cylinder in the hole. When all was in readiness the gun was fired.

There was a deafening roar as the cylinder slowly parted, displaying a hollow interior, while in the centre a bright square object glistened in the sunlight like glass.

"Bring the tablet to me," said the Astronomer Royal, "that shining metal."

I observed that he was scarcely able to control his

excitement and impatience. He put his hand to his brow as if in pain and perplexity, and began to walk backward and forward.

Two engineers descended, and after some considerable time returned to the top, with what looked to be three or four sheets of tinted glass fastened together at each corner.

The Astronomer Royal took the mysterious object from the engineers, carried it to his airship, and before anyone could ascertain what would next happen, his airship arose, and in a few minutes was flying quickly from the field.

There was nothing to do but return.

The morning following the falling of the projectile from Mars to our earth, everyone eagerly scanned the "paper" to see if anything had been discovered as to the reason why it had been sent. The first thing that arrested the attention of the millions of readers was a notice printed in very large type, which read :

"IMPORTANT.

"The Astronomer Royal, Count von Linden, will explain to-night, at the College of Science, why the projectile was sent from Mars. He will also explain the reason of the Martian signals, which have puzzled the inhabitants of this globe for some time."

CHAPTER XXV.

A TERRIBLE PREDICTION.

NOT one scientist of importance was absent from the big lecture theatre in the College of Science in Sastri Natesi.

The building was a vast one, something similar in plan and arrangement to the old Albert Hall, save that instead of floor and galleries the seats all rose in regular gradation from floor to roof, ranged horse-shoe fashion in front of the platform.

Although it was early in the day the place was artificially lighted.

Opposite to us, on the right, seats of honour were reserved for the chiefs of the Science Department. In front of the platform were grouped several professors. Most of them had taken their places and were conversing together in hushed whispers.

I sat next to the Professor of Physics in the first row.

Presently a deep silence fell in the room : the Astronomer Royal had arrived and was walking to his chair. Nervously I glanced at the calm ascetic face which bore no trace of doubt or excitement. The huge globe of light above his head revealed the dazzling emblems of his position, and the crimson sash across his breast.

Without a word he placed a packet of notes on the table in front of him, and arranged them in order.

"Is everyone here?"

"Yes," answered several voices at once.

There was something horrid and portentous in the absolute silence that reigned in the room after he had spoken.

"Everything has a beginning, and everything has an end," he said at length, breaking the silence. "This world had a beginning, and it will have an end."

The scientists glanced at one another. Had they heard aright? Several fixed their eyes intently on his calm face. I wondered if he was mad. A supreme genius is very seldom sane. Professor Lombroso has said so. Max Nordau agitated scientific Europe by saying it in my time. Yet someone more important said it years before that :

“Great wits are sure to madness near allied,
And thin partitions do their bounds divide.”

“Circumstances have arisen, circumstances beyond my control,” he said, and paused.

The scientists listened eagerly to hear what was coming next. Some bent their heads forward, so as not to miss a single word that would follow.

“Our earth, which we are all fond of regarding as something mastodonic, is shortly coming to an end.”

The intensity with which he spoke, and the essence of the speech itself, left me for a moment dumb with wonder, and with an incomprehensible consternation born of some intuition not yet understood. Several of the scientists looked at each other doubtfully, and hands lately thrust into pockets were withdrawn to scratch puzzled heads.

“When an ordinary Kansas ‘twister,’ as we call cyclones in the West, strikes this commonplace sphere and wipes out a few communities, we of this earth are prone to raise our hands in horror at the sickening details of the death and disaster left in its track, and marvel at the wonders of nature which allow a wind-storm to gather such strength that the greatest of our earthly-reared things are as straws in its way. The houses and animals of the West sailing through the air in the grip of a cyclone; the oriental, who has seen the sea roll up in one great massive wave that has enveloped everything in its path by the elements. All these disturbances are mere zephyrs beside a celestial catastrophe that will affect the whole of the globe, and not one part alone. We are doomed—doomed—doomed——.”

His voice died away in a hoarse whisper, while he stretched out his arms upwards and outwards as if in exoneration to some unknown Force.

"What does he mean?" whispered one man to another.

"You know that from the beginning of recorded history, stars, supposed to be new, have, from time to time, blazed out in the heavens. You know that these stars are not really new. They are simply commonplace stars which, through the action of some cause never yet discovered, suddenly increased their light and heat thousands of times. Then in the course of a few months they faded away into their former insignificance, or rather, perhaps, turned into nebulae. They could not go on shining for ever. They commenced their course with a limited amount of potential energy, and this energy was being incessantly dissipated in the form of radiant light and heat. This dissipation of energy could not go on continually, and in the course of ages became exhausted. We know that many of the dark bodies were several times larger than the earth and are very rare. Ordinary comets are plentiful enough, as you all know. More than 25,000 have been recorded. But dark stars are so rare that one has not appeared for three centuries, and only twenty-one have been recorded in astronomical history. They differ from comets in not belonging to the solar system, but coming from far distant regions among the stars and in being comparatively dark in colour, with very short tails, or none at all. Their origin and destination are alike unknown, each pursuing its own way through the immeasurable abyss of space.

"One of these dark bodies is going to fall into our sun. When this happens the heat of the sun will be suddenly increased thousands of times. There can be no doubt as to the consequence. The whole surface of the earth will be exposed to a radiation as intense as that in the focus of a burning glass, which you know will not only set fire to wood, but melt iron and

crumble stone. The flood of heat will destroy all the works of man and every living thing that exists upon the earth.

"This is July, and in the early part of September the end will come. There is just a possibility that the doom will be deferred until the latter end of the month, but the 30th will be the cancelling date, so to speak, according to my calculations; after that there will be nothing to calculate."

"Lost, lost, lost—all lost." His voice sank lower and lower, till it died almost away, and his head, he had held so proudly, dropped forward on his breast, for he saw in the near future disaster he knew not how to avoid.

He was silent for a brief moment, and then addressing himself again to the trembling scientists before him, he said:

"I warn you of the wrath to come."

He leaned across the table in front of him as he pronounced these words with a deep and poignant emotion. His eyes wandered round the room; they were terrible—like hot coals.

"By the laws of telepathy, as it is known in this age, I can read your thoughts. There are two questions passing through the minds of most of you. How do I know this? Why did I not speak of it before?"

"I will tell you. In the first place I learned that our world would end from the Martian astronomers. Those mysterious messages from time to time were warnings to our earth that a dark body would fall into our sun. They saw that we did not appear to notice their signals, so they sent a projectile to this earth with a further warning inside. With the aid of my *marsellugraph*, a machine by which I could see the Martians, I learned that they possessed a marvellous sense by which they could foretell an event some years in advance. For years I have studied the *Aegeans*, that is, the most advanced of the Martians, who have solved the secrets of life and death. The knowledge

of the future is one of those secrets. Whenever the *Aegeans* predicted an event on Mars, I was able to see it realized by arranging my machine to see the part of the planet where the occurrence would happen. Then I discovered that they could correctly foretell events on our earth, and one prediction was the end of the world.

"At first I did not know how this would happen, until I saw a machine in one of their science laboratories. This instrument is extremely delicate, more sensitive even than the seismometer. Instead of registering the smallest tremours of the earth's crust, or giving warning of earthquakes, this Martian apparatus can detect the presence of dark bodies in space years before they are visible. A few years ago the Martians sent their first signal, warning the inhabitants of this world of their fate. The signal was a row of four lights, diminishing in intensity from one end of the Martian planet to the other. Then the four lights were increased to eight, from eight to ten, twelve, and now twenty have been seen. This was to show from which direction the dark body would come.

"Then the second signal. That arrangement of five lights, in the form of a cross on the planet, meant that one of the dark bodies was flying through, or past, our system; and the head of the cross showed the direction in which it was to be looked for.

"I had no difficulty in deciphering their meaning, because, by the aid of my *marsellugraph*, I was able to see and understand more of the Martians than from our best telescopes. When I first made these discoveries I was very much perplexed as to whether I should make my fears known. Although I felt sure that I had correctly read the messages from Mars, it occurred to me that perhaps, after all, they had made a terrible mistake. Physicians make it a point of honour not to inform their patients of their end. Why should the race be apprised of a catastrophe that may never happen? The mental sufferings endured in

the meantime would be useless, no matter whether they were saved. Why make them suffer to no purpose? I can give you an instance of a terrible mistake, one which decided me not to speak. In 1832, one thousand one hundred and seventy-three years ago, all Europe was in pangs of terror when it was announced that Biela's comet would cross the Earth's path. People died of terror, and so serious did the scare become that a Parisian professor begged the Academy of Science to publicly refute the assertion."

He paused a few moments, and then resumed his speech.

"A short time ago I saw, by the aid of my machine, some Martians place a kind of ivory slate in a projectile. Before they sealed it I was able to take a photograph of the inscription written upon it. By the time it reached the earth I had succeeded in translating the characters. To put it briefly, the message states that the dark body has been observed by the Martian astronomers. It will be some little time yet before it will be seen by our astronomers, because the instruments of the Martians are more powerful and large than our best optical instruments. When it comes within a certain distance of the sun it will begin to shine by reflected light, like the planets. As it is a very large body, comparable with the sun in size, it will first become visible far beyond the confines of the solar system. For years its motion has been very slow, owing to its great distance from the sun. It will probably be first discovered as a telescopic star, not differing in appearance from other stars, of the same brightness in its vicinity. It will then, perhaps, shine as a star of about the 9th magnitude, as any much fainter star would probably be overlooked. Doubtless it would at first be mistaken for a 'new' or 'temporary star,' or a variable star at its maximum brightness, but the comparative constancy of its light, and its great parallax, or apparent change of place among the neighbouring stars will soon reveal its true

character and show that it is really near the earth compared with the distance of the stars. It might, however, be mistaken for a distant comet, but if coming directly towards the sun, its change of place would be small, and its light, examined with the spectroscope, would show a solar spectrum indicating that, like the planets, it was shining by reflected sunlight. Further, its distance would be calculated from its parallax, and the result would show that no comet would be visible at such a distance from the sun. When it arrives near the sun it will form a magnificent celestial spectacle. By the time it approaches within the sun's distance from the earth, it will, I find, shine with about the same brightness as the moon when full, and it will rapidly increase in brightness of surface as it approaches the sun. It will then begin to show phases like the moon, and we shall have the curious spectacle of two moons in the sky. The end will not be long after this.

"I have revised my notes, observations, and other astronomical data, and worked out my calculations afresh. The result is the same, and must now be accepted as an incontrovertible fact that needs no further discussion.

"Under the circumstances I hardly know how to act. I am having several huge vaults built, deep down in the earth. When the critical moment comes, I advise you to be in readiness and bring your wives and families there. I have laid in provisions enough for many months, and even years. For the present it will be prudent to guard against the increase in the sun's heat in every way possible. Let all combustible objects exposed to the rays of the sun be protected by non-combustible coverings. Food and clothing liable to be injured must be stored in cellars. Let the roofs and sides of your glass houses be covered in some way or the heat will melt them. I should not advise you to go to the North Pole, for although the Polar regions will be exempt from the sun's terrible radiation, the flood of hot air and steam will be rather

worse than anywhere else. I have but little more to say, but before I finish I should like you to hear this essay."

He took up some papers, picked out one, laid the rest aside, and said :

"I have here a translation of a great Sanscrit epic poem, 'The Mahabharata,' for it seems remarkable that the writer should have predicted the end of the world by fire, remarkable because the piece was written many centuries ago. Listen, and you will have an idea what the end will be like. The following passage appears in the ancient work—

'O King, towards the end of these thousands of
'years, constituting the four Yugas, and when
'the lives of men become very short, a drought
'occurs extending for many years. And then, O
'Lord of the Earth, men and creatures, endured
'with small strength and vitality, becoming hungry,
'die by thousands. And then, O Lord of men,
'seven blazing suns appearing in the firmament,
'drink up all the waters of the earth, that are in
'the rivers or seas. And, O Bull of the Bharata
'race, then also everything of the nature of wood
'and grass that is wet or dry is consumed and re-
'duced to ashes. And then, O Bharata, the fire
'called Samvartaka, impelled by the winds, appeareth
'on the earth that hath already been dried to cinders
'by the seven suns. And then that fire, penetrating
'through the earth and making its appearance in
'the nether regions, also begetteth great terror in
'the hearts of the Gods, the Danavas and the Yak-
'shas. And, O Lord of the Earth, consuming the
'nether regions, as also everything upon the earth
'that fire destroyeth, all things in a moment.'"

The words echoed through the great building and died away as the Astronomer Royal concluded.

A slight stir sounded at the end of the first row. My attention, which had been riveted on the Astronomer Royal's face, turned to the direction from whence the sound came.

A scientist had risen to his feet; his face ashen pale, with a tinge of green in it, like that of a man I once remembered seeing in the dock of the Old Bailey, when the Judge passed sentence of death upon him.

"Is there any hope for us? Will not the dark body miss the sun by not going in a straight line?" he almost shouted in a half hopeful tone to the Astronomer Royal.

"It is, of course, possible that the dark body will not approach the sun in a straight line, but along an elongated ellipse. In this case it would miss striking the sun, and there would be no collision. But the earth's motion in its orbit would be much disturbed by the powerful attraction of the dark body, and it is not easy to determine what the exact result would be. If, however, the body was moving in a sufficiently elongated ellipse to pass inside the earth's orbit, it would probably pass close enough to the sun to produce a great disturbance in that body, due to tidal action, and a large amount of extra heat would be developed. Should the two bodies merely graze each other an enormous amount would certainly be produced, quite sufficient to cause the earth's destruction."

I can remember seeing the tall upright man with the long beard, a high white brow beneath his velvet skull cap, and wearing a row of orders, as he stood there like a judge pronouncing sentence of death upon us all.

Only three days have transpired since the meeting, but as I now write of what I heard and saw in that great building, I can see his figure in my mind and seem to hear his voice as he turned to the scientist and said:

"Although I usually take an optimistic view of things, I think in this case it will be wise to face the matter fully. I myself do not believe there is the slightest chance of escape from the inevitable doom. For the —pre-sent— I —have— noth-ing— more—to say," he said, faltering from syllable to syllable.

He closed his lips with precision and sank back in his chair. His face showed a deathly weariness. The eyes looked straight before him, as though he saw nothing of this world.

No one moved, or attempted to move, but sat as if dazed. The silence was terrible.

I gasped, my head seemed to buzz, while a sort of paralysing numbness took possession of my whole frame.

Presently the Astronomer Royal rose to his feet, and remained standing for a minute absolutely impassive, his immobile face showing not the least sign of any emotion. His hands straight by his side, his eyes fixed in front of him, with the look of one who sees nothing, he stood with the absolutely blank expression of an automaton. Then, without looking to the left or right, he walked out of the room.

At length, after some few minutes, which seemed hours, a Professor of the Lamballe University spoke, though addressing himself to no particular person :

"A terrible mistake has been made. It cannot be true."

No one answered, but as if roused by his words, everyone arose and filed slowly out of the hall.

CHAPTER XXVI.

I DECLARE MY LOVE.

WHEN we reached the outside we found a great number of people amassed together, and who watched us closely, for the meeting had caused widespread interest.

In less than an hour everyone in the world would know the worst.

Kovessi came up as I reached the bottom of the long flight of wide steps. Before I had exchanged more than a dozen words with him I felt a hand on my arm, and on looking round beheld one of the scientists.

"The Astronomer Royal, Count von Linden, desires to speak to you," he said.

"Where is he?" I asked quickly.

"Follow me, Señor, and I will show you."

We passed the lecture theatre, and made our way down long corridors, now turning to the right, now to the left.

The scientist who had conducted me paused at the end of one passage, threw open a door, and as I passed through, closed it after me. His steps died away down the passage, and I looked round the room.

The Astronomer Royal was writing quickly with a long quill pen, and after scratching away for some few moments in silence, he said, without looking up:

"Is that you, Sir 'Thomas?"

I made an affirmative reply.

"Pray be seated."

For the first time he raised his head, and it struck me how old he looked. He seemed to have aged considerably in the last hour.

"You know all?" he said, looking at me thoughtfully and interrogatively.

"You mean, I presume, the end of the world."

"Exactly."

A short pause followed, and then he said,

"Sir Thomas, tell the Lady Zoe all you have heard and break it gently to her. I cannot do it myself."

"I will, Sir," I responded quickly.

He looked at me searchingly and said :

"Sir Thomas, you love the Lady Zoe."

"How do you know, Sir?" I stammered, feeling decidedly hot and uncomfortable, for he had spoken the truth.

"It does not matter how I know," he replied. "I have known it long since. You have refrained from speaking because you think that the Lady Zoe is above you in position, and possesses greater intellectual talents. Your gentlemanly nature forbids you to make a proposal which you consider would be an insult to a lady in her position. For some time past I have studied your mind and perceived your love for her. There is no one to whom I could better trust my daughter's happiness. The end of the world is drawing nearer," he continued, speaking slowly and in a low tone. "Every moment the dark body is nearing the sun with fearful velocity. But the distance is so great that it will be some time before the collision actually occurs. Why should you not both be happy, even with such a short time to live? In view of the suffering that is to follow, let happiness be prevalent as much as possible. Go to the Lady Zoe at once, and tell her of the fate that is shortly to overtake the world, and declare your love; and may heaven bless you both."

"I can only reply 'I thank you,' but it expresses more than you imagine. I do love the Lady Zoe," I exclaimed with ardour, "and if it was required would give my life for her, although I am not worthy to declare my love to a being who more resembles an angel in form and character, but since I have your consent, it will give me courage to offer my suit. But,"

I exclaimed, the idea suddenly striking me, "suppose the Lady Zoe does not care for me."

He threw his head back, and gave a confident smiling glance.

"She entertains the same sentiment towards you as you do towards her. It is customary now for a lady to make the first advances, but she thinks that you would consider her presumptuous, and reject her for making a proposal which in your time would have been regarded as immodest on the part of a lady."

"How do you know this? Are you in earnest?" I questioned eagerly, laying my hand on his arm.

"Telepathy, Sir Thomas, telepathy. You are apt to forget this science."

He hesitated for a moment, and then went on:

"I shall not return to Sastri Natesi for an indefinite time, for I have to superintend the building of several vaults in Europe. In the meantime I shall place my daughter in your trust. It will be best for you to remain at my house. I will instruct my servant to prepare rooms for you. You had better go with all speed to the Lady Zoe before the report of the meeting becomes generally known."

He touched an invisible bell, and the scientist who had previously shown me to the room, entered.

"Show Sir Thomas the way out," said the Astronomer Royal.

Shortly afterwards I stood outside the building again.

Kovessi was still waiting for me, and we hurried into the airship.

"Instruct the aeronaut to go with all speed to the Astronomer Royal's residence in Sastri Natesi," I said to Kovessi.

The accelerator of the airship must have been touched immediately, for the vessel rose swiftly and forward like a meteor.

When Kovessi again returned to where I was standing I told him of the meeting and of my good fortune.

"Allow me to congratulate you, Excellency," he said, with that peculiar frank smile of his, which had in it the languorous grace and charm that melted my heart. Then he began to speak of the possible celestial catastrophe, but I was so filled with the joy of love that my utterances were invariably incorrect.

Soon Sastri Natesi came into view, and shortly we stood in the gardens of the Astronomer Royal's mansion.

"Can I see the Lady Zoe?" I demanded imperiously of the automaton footman that came in answer to my impetuous touch of an electric button.

It motioned me to follow. The legs of the furniture footman carried him to one end of the great hall. It stopped at a doorway handsomely carved. This the automaton held open for me, and I entered the room. It pointed to a chair, and I sat down to await Zoe's coming with tremulous emotions.

No ambiguous phrase would describe the clear-cut recollection I have of that vast chamber with its deep Italian windows, and its wealth of carved wainscotting and pictures of rare value. Scattered here and there were Turkish and Indian divans and piles of soft cushions and furs. In one corner was a sort of mandore with an excessively long neck and seven strings, an exquisitely inlaid Spanish guitar, and what looked to be an Hungarian zither. Above them again was a dulcimer of cedar wood.

This I concluded was the Lady Zoe's room, with its fragrant perfume of bright flowers, and all that air of subtle refinement which clings to the room of a young and beautiful girl. The room opened into a boudoir hung with tapestry of exquisite workmanship. Beyond the boudoir was a bedchamber painted blue and hung with curtains of a material like silk, and with a sumptuous bed in an alcove.

A piece of unfinished embroidery had slipped on the rich carpet. I could not help noticing the skill that had been used in the diversification of colours.

I concluded that it was the Lady Zoe's work, and as I picked it up and placed it on a couch, a light step sounded on the floor outside. The door opened, and the Lady Zoe herself entered.

She was attired in some soft fabric which looked to be crepe de chine, which clung to the contour of her body with exquisite taste and brought out all the lines of her superb figure. A necklace of transparent blue stones with violet tints, more brilliant than a sapphire, encircled her slender throat, but it did not need it to enhance her beauty. She perceptibly started as I glanced at her, and I fancied I observed a momentary blush on her cheeks as she sweetly smiled.

I noticed that her face was very white, and her eyes red with recent tears.

The smile left her face, but its pensive loveliness was ineffable. There came into my mind the line in Scott's "Lay of the Last Minstrel," in which Fitz-traver sung the vision of Lord Surrey's love, made visible by the magic art of the wizard Cornelius :

"How passing fair
The slender form."

was in all the lily-like glory of sweet maidenhood.

"You know all," she said.

Her voice was soft and musical, as soft as the note of a flute.

"It is terrible. No wonder is it that my father always looked gloomy, as though he was oppressed by the dread of some impending calamity. What a strain this secret must have been to him."

"Then you have already heard all about the end of the world?"

"Yes, I have heard all—everything."

She covered her face with her hands and burst into a wild fit of weeping. Her slender frame shook and trembled with the violence of her emotion.

I crossed the room to where she was now sitting, bent over in her grief. Putting my arm tenderly around her, I drew her into a standing position. She

did not offer to resist me, and I drew her gently near me.

"Zoe," I said huskily. "Do not grieve. I could better watch the dark body fall into the sun than see you unhappy. Be brave, dear Zoe."

"I will," she said, speaking the words with an indrawing of breath. "I must be brave—I will be brave."

The collette that encircled her white throat rose and fell to her agitated breathing, while the perfume of her hair was as intoxicating as the rarest wine.

"I came here at your father's request to tell you of the world's ending, and by his permission I have something still more to say," I said, drawing her still closer to me. "Something that only hearts that love can understand. Was it chance that brought me into this age to look upon your beauty? Nay, I think not—it was Fate. There is an old German song which reads :

"Heart will find its kindred heart,
Soul will seek its sister soul."

Can it be, dear Zoe, that though ten centuries once divided us, we were destined to meet and love. I have loved you since I first saw you ; I have dreamed of you, but my dreams ill reveal your loveliness and charm. From my soul I love you. Dare I believe from your own sweet lips that you love me in return?"

She trembled violently, but not a word came from her. Tears streamed from her eyes, and her lips quivered.

"What is your answer, dear Zoe?"

"How shall I answer?" she whispered softly.

"Say you love me."

"I love you," she said in a twentieth century tongue, and in a voice low and as sweet as the sweetest music to my ear.

Each syllable of the three whispered words rang like a silver trumpet-note in my heart. I clasped her in my arms and covered her beautiful face and her

neck and hair with kisses. Her warm and lovely form quivered in my arms, and my heart laboured wildly. Presently we desisted and stood abruptly apart, then she bent her knee and assumed a kneeling position. As she knelt the whole character of her face changed. The goddess shone through her and glowed in all her body. The divine light shining out from her human body rather awed me as an angel, than moved me as a young and beautiful girl. Were I a painter seeking inspiration to depict an angel such as no man had ever before painted, I should strive to place on canvas the expression on Zoe's face as she knelt there.

"Terrible as the ending of this world will be, since knowing that you love me, I can meet the suffering with new strength," she said, in a voice that would have rendered musical the roughest sounds in the rudest tongue.

I raised her to her feet and again folded her to me. My arm tightened about her in a passionate embrace, and again I rained kisses on her lips and on her eyes.

In almost every age there has been some one woman to whom has been accorded the title of the most beautiful woman of her time, as for instance, Aspasia, Cleopatra, Helen of Troy, Ninon de l'Enclos. To me there was only one beautiful girl in the thirtieth century, and that was the Lady Zoe. I have said "beautiful girl," but that does not at all express what I mean, nor do I think it is in my power to do so. Forsooth I had never before seen such full red lips, and hair that waved to each side of the white brow in soft curling masses. Hair of most excellent fineness, and bright as gold. Heaven seemed to have opened to me as I held her close.

A radiant look overspread her face, as she said very softly :

"What does the ending of the world matter since we have each other? Our love will be strengthened by the ordeal,"

I longed to remain there with her and feel her divine form in my arms. But suddenly remembering that Kovessi was waiting for me, I covered her face with kisses and put her gently from me.

"Good-bye, dear Zoe, I must leave you now, for Kovessi will be impatient, but I shall see you again very soon."

As the airship left for Zeugirdor, Zoe came out into the garden to see us off.

I stood on the platform and watched the fair vision till I could no longer see her, and then went back to the saloon with a feeling of indescribable joy in my heart.

CHAPTER XXVII.

THE DARK STAR.

EVERYONE, man and woman and child, read the "paper" the morning following the great meeting of scientists.

The Astronomer Royal's speech was read, not once or twice, but over and over again, by the inhabitants of the whole globe. The Sitanathean read it, and then, as if doubting if he had read aright, went over it again. The blue-clothed Chinaman sat down to think, and pondered how he should spend his remaining days on earth. The Japanese merchant read it amazed, and then decided that he would relinquish business at once. The passengers who stood in the cube waiting for their car, crowded round the "paper" and perused it with great interest, and then stood aside in groups to discuss what they had read.

The wireless news flashed through the air and on to the translucent sheets, on the sides of the saloons, in the thousands of airships that were flying through space. As the characters began to appear in regular lines and columns the aeronaut stopped his machine to read the strange news.

Far away from land the news-bell tinkled in the cabins of the ships that were moving over the water with the speed of flying worlds. As the news flashed on the "paper," men contemplated building vaults or planned how they should fit up their cellars.

Although there were many who believed that the end of the world would come, there were millions who were sceptical and who said that a collision between a dark body and the sun would never happen. Things would remain as they had always been. Their

belief was strengthened when a few days later, the following appeared in the "paper":—

"The Professor of Logic in the University of Zeugirdor has put all the data bearing on the subject of the world's ending into equations, which he proceeded to solve, and has thus announced his judgment on the view of the Astronomer Royal, Count von Linden.

"Ten thousand years of recorded experience has led to the conclusion that the sun is one of the most stable bodies in the universe. During all the years through which meteorological records have extended there has not been a change of a single degree in the annual amount of heat radiated to the earth, nor is there likely to be. In favour of the view that a sudden change will be produced by any cause whatever, we have only a doubtful astronomical theory, sustained by no experience whatever. There is no doubt but that Count von Linden has correctly read the messages from Mars, but it would be folly to believe in a Martian error. There will be no collision between the sun and a dark body. Yet in view of the magnitude of the interests involved, the prudence of the suggestions made by Count von Linden cannot be questioned. No harm can be done by taking every possible precaution."

Beneath this appeared a paragraph contributed by Luiz Kaselier, the great savant on the sun's radiation :

"The numerous means by which we can harness the sun has enabled us to register its heat. During the last forty years of my experience no appreciable difference has been observed in the amount of heat that we obtain from the sun by the truncated cones in the Chinese deserts. If the world is going to end as Count von Linden has predicted, I am convinced that there would have been a change in the sun's radiation some time ago. Yet up to the present no difference has been observed."

The next day came the report of the Solar Commission.

This Commission consisted of an international body of scientific men, concerned with the study of the sun. Their aim was to unify and systematize the work of the great observatories and institutions of research scattered through many lands in order to facilitate and accelerate the solutions of the important problems to which they were devoted.

Their report read as follows:—

“If by chance a dead world should strike the sun the amount of heat radiated to the earth would be slight, but there is little fear of a collision with the sun. From the earliest times astronomers have struck terror in the hearts of men by describing and predicting some terrible end to this earth which never came to pass. The old Greeks, who loved to enshrine in poetic legends the processes of Nature, described the end of the world in a story. The sun was represented as a strong and beautiful man with wavy locks and a crown of rays driving a splendid chariot. Starting in the morning from the ocean in the East among the Ethiopians, and driving across the heavens in his glowing car, he descended in the evening into the Western sea. At night, as he was asleep, he was borne along the Northern edge of the earth in a golden boat to his starting place in the East. The story goes on that on one occasion young Phæton, a son of the Sun, persuaded his father to let him drive the chariot across the sky; but the adventurous youth lost control of the horses, and driving too near the earth, scorched it—mountains were set on fire, rivers and seas were dried up, Libya became a desert, and the Ethiopians were blackened by the heat. The ending of the earth as suggested by Count von Linden may be treated as this charming Greek story—as a fable more than as something that will actually happen.

Several months passed by, and no sign was observed

of a dark body. "The Astronomer Royal has made a mistake," said most of the inhabitants of the globe. "There will be no celestial catastrophe." Then the announcement was made from ten observatories almost simultaneously that a new star had been discovered. With the aid of their huge and modern instruments, the astronomers were soon able to tell that the stranger was not an ordinary star, but the dark body, and moreover it was coming towards the sun. Each evening it rose larger and brighter than the previous night, and men's hearts began to quake with fear. There was nothing in the body itself to excite any alarm; it was like any ordinary star. Formerly the dark body had been seen only at night. Now the weird object could be seen in full daylight like some dragon in the sky.

When September approached it was soon observed that the star was rapidly nearing the sun. Men now began to count the days. Ten—nine—eight, and to-morrow only seven days remained. It required nerve to look at the star, which now equalled the size of the moon, and gave such light that the authorities had discontinued lighting the cities.

At length the last evening came; to-morrow about midday the body would fall into the sun. It was a glorious night, such a one indeed as was never known before. I sat by the window and marvelled at the beauty of the evening. Everything was in readiness to-morrow for our exit to the vaults. We had a stock of provisions which would last for months, and perhaps a year, and after that——.

The moon was shining overhead, and brighter and larger shone the fiery body, while the stars shone like diamonds, sprinkled broadcast on a velvet pall. Beneath me lay the city, bathed, as it were, in light.

In the air, high above the glass domes of the beautiful buildings, darted airships of all shapes and glittering colours. Some were black and glistening, while others were white as snow. One looked as if it had been

cut from a colossal pearl. The low melodious hum of the hidden mechanism swelled as the speed of the vessels increased with the sibilant yet rhythmical swish of the wings. The spectacle was awe-inspiring, not only in itself, but in its suggestion of man's conquest of the air, and yet he was absolutely powerless to prevent the coming catastrophe. Most of the airships near me remained stationary with quivering wings. Now and again a *zopellen* flashed through the air. I may mention that a *zopellen* was a successful device for operating airships with power projected through space by radiation—some electrical manner like Marconi used to send telegrams through the air.

At last, tired of watching the airships and the star, I rose and looked out across the city. A great longing to walk took possession of me, and not caring much where I went, I made my way to the city. After traversing several streets, I suddenly emerged into a broad highway where glass and marble buildings gleamed in the light, and richly dressed people lounged in the wide exedrae and stately porticoes, discussing the coming end of the world. There was a rapid exchange of questions and answers in a language which differed but a little from the ancients in general construction, though many new and curious words were used. The faces of a good many were not of the Hindu type, while strongly suggesting it. Some were pure Mongol, some were pure Aryan; and for all I know to the contrary one or two might have been English, but as a rule the physiognomies around me suggested a mingling of these races. One tall handsome man, with a brown complexion, noble black eyes profoundly imbued with melancholy, and dressed in a style of magnificence, saluted me courteously with a polite bow, and made some courteous inquiries concerning my health. I replied that I felt quite well at the present, and expressed that hope that he felt in the best of health. He then bowed again and said ;

"I perceive, Señor, that you look ill, and may I also add anxious."

"How can I be otherwise when to-morrow the end of all things will come."

"Then avoid the end as I am going to do."

"How can you speak thus?" I said. "You know this is absolutely impossible."

"Not at all," he said. "To-night I shall be projected two or three centuries back, it does not matter which, and I should advise you to do the same."

On perceiving the incredulous look on my face, he said, "Supposing it was possible, would you allow yourself to be projected back with me into another age?"

I nodded my head, though I half hesitated when I thought of the beautiful Lady Zoe.

"Follow me, Señor," said the stranger.

We walked some distance in silence. Suddenly he paused before a large white building, and knocked three times upon the door of the principal entrance. It was immediately opened by a small deformed man, who looked like a Spaniard. The door was quietly closed, when we were inside, and a curious conversation took place between the two men. I use the word conversation, but that is scarcely correct, though I do not know how else I can describe it.

Not a word was spoken on either side, the lips did not move, and not a sound was heard, yet the two men seemed completely to understand each other.

The stranger then turned to me and bade me follow the little man, who conducted me to a room.

Before me stood a tall and fine-looking man of a singularly noble mien, lynx-eyed, calm, inscrutable as the Sphinx itself, and showing physiognomic features. He appeared to be a Chinaman, for he had a very splendid pig-tail, long and thick, of coarse black hair. He was dressed in the old national costume, a black silk cassock to his ankles, and a short blue silk sleeveless coat. The soles of his shoes were very thick, and

added to his height. To crown all, he wore a cap with a tall feather standing upright in it, and a magnificent solitaire diamond in front.

I ventured to speak to him in English and Chinese, but he shook his head. Perhaps he understood French; I did not know whether that language was known in the thirtieth century.

"Parlez-vous Français?" I queried in the orthodox exercise book manner.

He knitted his brow again, shook his head, and made a gesture with his hands which might have meant anything, but which signified, I took it, that he did not understand me.

As a last resource I hazarded: "Sprechen Sie Deutsch?"

And to my delight he readily answered, "Ja gewiss, ja Deutsch spreche ich wohl."

Then, in the old language of Goethe and Schiller with a few strange words introduced, he began:

"I understand, Señor, you wish to return to the age from which you came, namely, the twentieth century, together with Don Miguel, to escape the coming doom."

I nodded my head.

"Still I perceive that you doubt that I am able to do this."

He rose and fetched a little box. It was made of a single amethyst, bordered by friezes of acanthus leaves. He was holding it in the palm of his hand, where it burned with a purple light. I wondered what so small and yet so rich a receptacle could contain. He pressed a little spring in the filigree work. The lid flew back, revealing a crystal flash of minute proportions, oviform shaped, with a gold top, not unlike a vinaigrette. He moved his hand to and fro, so that the light fell upon it and caused the yellow powder it contained to shine.

"What is it?" I asked.

"You shall see."

He removed the top and poured a few grains in the palm of one hand. Then holding them up between the thumb and fingers of his other hand, he dropped them into a small saucer containing a white liquid. Immediately the room was completely filled with what seemed to be chrome and purple smoke. It was so thick that I could not see any part of the room. It changed to a green colour, and it was as if I was looking through green glass. As I gazed, I became conscious of figures forming themselves in the smoke. At first it was indefinite, vague, without clear form. Little by little it developed, until I was able to make out a scene dimly outlined, delicately veiled, as it were. Then it seemed not that the mist cleared, but that my eyes became stronger and saw through the delicate haze. It was as if the room was full of men of all nations, who had lived in the past. Some were Chinese, Thibetans and Cinghalese; many were pure Caucasians; some showed traces of Semitic origin, some of Mongolian. There were two men who might have been Hindus, brown complexioned, with regular features, and magnificent Africans of those Arabianized types which flourished on the east coast of the once called Dark Continent.

"What does it mean?" I cried with sudden fear.

"Do not be alarmed," said my host, "we are in the spirit world."

The vision, dream, or whatever it was, vanished, and for a moment I felt inclined to believe that I had been under some strange influence.

But the stranger assured me that I had been projected into an astral shadow-land, whirled away, as it were, on an unbridled steed into a kingdom of spirits by the use of the white liquid.

"On a sudden in the midst of men and day,
And while I walk'd and talk'd as heretofore,
I seemed to move among a world of ghosts
And feel myself the shadow of a dream."

Suddenly he turned his head and fixed a look on

me with his deep penetrating eyes. At the same time he made several passes in the air with his long white hands. I tried to avert my eyes and avoid the eyes which seemed to be looking through the back of my head into the wall behind. An overwhelming feeling of drowsiness came over me, and my legs seemed to grow suddenly weak. I have a faint recollection of being saved from falling by Don Miguel.

CHAPTER XXIII.

THE SECRET OF REJUVENESCENCE.

ON recovering consciousness I found myself lying in a bed in a room which seemed to grow more familiar as I looked around me. It was furnished "en bruhl" with a painted ceiling and walls, and a rosewood floor.

I felt very weak, as if I had been ill for some time.

"Is the end near?" I said half aloud.

"The end!" said a voice by my side. "You are far from the end."

I looked round, and thought I saw Don Miguel bending over me.

"Where is the Chinaman, or German, or whatever he is?" I asked.

"There is no Chinaman here, but Herr Meyer, the great Professor, whom you know well, Sir Thomas."

"Then who are you?" I asked.

"Jules Maril, and at your service, monsieur."

"Jules Maril," I said slowly, trying to call the name up from some hidden corner of my brain. "Why, he must have died nearly one thousand years ago."

I thought I saw a smile on his face as he said:

"In what year do you suppose you are living, monsieur?"

"In the year 2905."

"*Ma foi*, do you then; let me tell you that this is the year of grace 1905. *Pardieu!* you are a great deal too previous, monsieur."

"And where do you think you are now?" said the voice of another person. I could not see the speaker, but his voice sounded like that of the Chinaman.

"Somewhere in India—to be exact, I have reason to believe that I am living in the city of Lambella."

"Mein Gott, man, how you vonder!" said the second

speaker. "India—Lambella, de man ist surely mad."

"Then where am I? For heaven's sake tell me or I shall go mad."

"You are in Rome," said the man who called himself Jules Maril, "in my room."

"Then how did I come here?" I said, "for if my memory serves me right——."

Half doubting the man's words, I was about to put more questions to him, when he poured some dark liquid into a glass and bade me drink it, saying:

"You must not say any more just now; all will be explained later."

I suppose it was the medicine, for I soon fell into a calm refreshing sleep, which lasted for several hours.

After awakening, the conviction began to grow in my mind that I was still living in the twentieth century. This thought gave me some pleasure, for after all it was better to be in the present than in the future. But those things I had heard and seen—was it all a strange dream, from which I had just awakened? Was there some sort of communication, however faint, however speculative, between the world of known things and the world beyond? There comes to most of us at some time of our lives the thought that we have existed before, and that we shall live again in this world in the future. I wondered if I was actually projected into the future, and if some of the people I had met were men and women who now existed in this age. But all these conjectures are fruitless. Perhaps in the distant future Jules Maril would be Don Miguel, and the great German physician would exist as a Chinaman.

The next day Jules Maril explained how I came to be lying in his house when I had really entered the catacomb. From the first, he said, he did not believe in my discovery, but thought it best to humour me. When he returned from Germany and visited the catacomb he found me lying apparently dead. He communicated at once with Dr. Meyer, the famous

German physician, who came almost immediately, and on examining my body detected certain signs of life which had escaped the notice of the French doctor, the symptoms of rejuvenescence.

The next thing was to remove my body to Maril's rooms, that the effect of the experiment might be watched by the two doctors, who were both interested, and especially Dr. Meyer.

A carriage was hired in Rome to meet them near the Appian way, a short distance from the catacomb. The driver's curiosity was not aroused. He had been well paid, and he was informed that the two men were interested in the discovery of a new catacomb, and were removing a mummy and some old relics, which was really the machine.

"Let me be the first to congratulate you, monsieur, on the success of your experiment," said Jules Maril, shaking me warmly by the hand.

"And may I haf de honour of being de second," said Dr. Meyer; "your invenshun vill revolutionise medical science."

"Gentlemen, I don't understand you if you refer to my machine, that has been a failure, as you know, though I can swear that I have been living in quite another age."

"You spoke of failure," said Maril; "you are wrong there, Sir Thomas; your machine has brought about perpetual youth, or in other words, you have discovered the elixir of life."

I looked first at Maril and then at Meyer in amazement.

"Do you remember how you looked before your sleep; if I remember rightly, Sir Thomas, you told me your age was fifty-one. That was not long ago."

I was about to say one thousand and fifty-one, but I said:

"Yes, you are right, I was born on September 17th, 1854, which would make me fifty-one."

"Then stand before that mirror, and see if you can see any difference in your appearance," he said,

pointing to a glass which stretched from the floor to the ceiling on one side of the room.

I did as he suggested, and to my astonishment I saw that I looked as I did at forty, and I can say with truth that I now felt quite twenty years younger.

"How long have I been in this trance?"

"Ten days exactly," said Maril.

"Then, gentlemen, perhaps you will explain to me the elixir of life, the discovery to the discoverer, the invention to the inventor."

The German physician was the first to speak.

"Ven I received Dr. Maril's letter," he said, "I left Berlin at vonce vor Rome, vor you must know, Sir Thomas, dat vor years I haf been inderested in your discoferies. The eleexer ob life vas de ferry thing I haf been verking at, dough in quite anoder vay. Vat you haf done ist dis. You haf de gradual hardening of de arteries prevended."

"We shall understand the exact position of affairs," said Maril, "by imagining an India-rubber tube through which ordinary lighting gas is passing. Should the tube be slightly damaged or in any way blocked, an excessive pressure of the gas will tend to produce fissures in the tube. Reduce the pressure, and the danger is obviated. So it is with our arteries; they are always in danger of the blood circulating in them at too great a pressure. To moderate this pressure after it has been shown to exist by means of that delicate instrument, the sphygometer, has long been one of the desiderata of modern science. Till Sir Thomas invented his machine everything had lamentably failed to have any effect.

"By the machine the dangerous pressure is reduced. In the case of a young man, in a few minutes, by nearly one half, while that of an old man, in a few hours, both subjects receiving, as it were, with the radio and electrical baptism, a guarantee of prolonged life. The radio-electrical fluid demolishes every impurity encumbering and blocking up arteries and organs,

and by the waves of electricity they are permanently expelled from the system."

"But all things become exhausted," interrupted Meyer, "de vinest constitooshun as vell as de virst. Ist not dat so, Sir Thomas?"

I nodded assent.

"You say, monsieur, that all things become exhausted," said Maril, addressing Meyer; "but as a man of science you know also that everything recovers itself, or is regenerated, or replaced, just which you like. The famous knife of St. Hubert changed blade and handle many times, but is still the knife of St. Hubert. The wines which the monks of Heidelberg preserve so carefully in their cellars are still the same wines, although each year they pour into it a new supply. Sir Thomas has followed their example by introducing into his body by his machine new elements which have replaced the old. This is the great secret of perpetual youth."

"Your exblanashun ist ferry goot, Herr Maril. I vill try de masheen on myself now ef Sir Thomas vil haf no objectshun."

I made a negative reply, and Maril led the way to the laboratory.

At one end of the room stood the machine. Maril placed the hood on Meyer's head and started the machine in motion. As the current traversed the serpentine conductors we saw a vivid blue flame, and heard the spluttering, hesitating song of the electro arc that made our eardrums tingle.

"*Rapprochez les electrodes!*" cried Maril above the din.

In an instant we saw a shiver run through the German physician, as if his old and sluggish blood was rushing through his veins from his head to his feet, his wrinkled skin seemed to expand, his eyes half covered by their lids, appeared to open without his will, and the pupils to grow and brighten, and his limbs to recover their former youthful elasticity.

A cry of wonder and surprise came from Maril's lips.

Meyer cried for joy, saying two or three times in succession, "Es ist gut, ja, es ist sehr gut."

But when, some time after the hood had been removed, all the former signs of old age returned upon him:

"I am zu old vor de hexperiment," he said bitterly. "Oh, ef I vas only young again!"

"Perhaps Sir Thomas, you will tell us how you felt under the influence of your machine," said Maril. "Can you describe to us the sensations of your sleep which has added several years to your life?"

We returned to the luxurious sitting-room, and when we were all three seated I narrated my adventures in the thirtieth century. The two doctors listened with evident interest, and laughed heartily at some parts of my story. But from the first I could plainly see that Maril thought that I must have been under some delusion, while Meyer looked puzzled.

"What explanation can you offer?" I asked.

Maril was the first to answer:

"You were under the idea that you would live for one thousand years. I did not believe you, though I thought there might be something in your machine. With thoughts of the future you went to sleep, and I should say the dreams were produced by the aid of the musical vibrations surging through the wires and on to the 'sensorium.' A powerful influence was exerted upon the acoustic associations by the machine, caused by the radium and by harmonic vibrations derived from the phonograph."

"What do you think, monsieur?" he said, turning to Meyer.

"Vot you say ist ferry posseeble," said the Professor, "but eet ist ferry gurious. Lady Browne vill hardly recognise you. Ven vill you return to England, Sir Thomas?"

"Very shortly," I said, "and I shall thank you if you will come with me."

The following made the round of the European Press :—

“ One of the most remarkable discoveries of recent years is the finding of a new catacomb near Rome by Dr. Jules Maril, the eminent French archæologist. Its date is different from that of any known catacomb and is rich in treasure.”

At the same time the Press was full of Sir Thomas Browne's discovery. Startling headlines proclaimed his invention.

“ THE FINDING OF THE PHILOSOPHER'S STONE.”

“ SHALL WE LIVE FOR EVER ? ”

“ THE ELIXIR OF LIFE FOUND.”

“ TWO GREAT DISCOVERIES.”

Under this headline the following paragraph appeared in a leading London journal :—

“ A new catacomb has been found by Dr. Jules Maril, who has already made several important discoveries in archæology. At the same time, it is interesting to record another discovery in another branch of science—the elixir of life, by Sir Thomas Browne, one of the greatest scientists of modern times. To put it briefly, Sir Thomas Browne has invented a machine which will prevent the decay of the arteries by a series of radio-electric currents, which will have the effect of prolonging life. Long life lies, therefore, in the arteries, those rivers which bear life to every organ—rivers which a mystic has compared to the four great rivers of Paradise.”

THE END.



